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OUR KNOWLEDGE OF OTHER MINDS

A STUDY IN MENTAL NATURE, EXISTENCE, AND INTERCOURSE

By

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TO

CHARLES A. BENNETT

FOREWORD

THIS essay is presented with the hope of throwing some new light on one of the basic problems of philosophy, which in spite of being so fundamental has hardly received at any time the undivided attention of inquirers. Whether new light is actually shed is a matter for the reader to decide. It is not expected that the argument offered will win wide consent, at any rate in the exact form outlined, but there is an idea back of the argument which it is hoped will not be lost, namely, that the more concrete and specific is our understanding of the nature and vital activities of mind the more possible it becomes to render the existence of other minds capable of proof, and likewise that the more intimate our contacts with other persons the better we are able to know them as minds. Acknowledgments are due to Professor C. A. Bennett of Yale University, whose interest in the problem inspired mine, and also to Professor W. H. Sheldon of Yale University, Professor G. E. Moore, and Dr. C. D. Broad of Cambridge University, for valuable assistance both critical and suggestive. I must, however, assume full responsibility for whatever appears here unattributed to others.

W. W. S.

New Haven, Connecticut,
January, 1930.

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CHAPTER I

INTRODUCTION

We do the same when awake as when dreaming: we only invent and imagine him with whom we have intercourse—and forget it immediately. NIETZSCHE.

THE problem to be discussed in the following pages may be stated in the words: How does each one of us know that there exist other minds than himself? This problem has a wide bearing upon metaphysical issues, and may properly be regarded as one of the most fundamental problems with which philosophy has to deal. This is certainly true, and it is therefore surprising that it has received on the whole such scanty attention from philosophers. Such neglect would be justified, if there were a short and easy answer to the question, but this, as will plainly appear as the discussion advances, is far from being the case. It is only in recent years that the problem has been examined with interest, its difficulty being for the first time acutely felt after Berkeley had raised epistemological questions concerning the existence of the external world.

The problem is one which will be found to have its bearings upon a great number of very different questions, but primarily upon all questions which are, in any sense, social. In ethics and in politics knowledge of other minds is assumed as a fundamental datum. Ethical teachings vary in important ways according to the attitude which is taken up toward the relation between minds. Political questions, on their ethical side, must be largely influenced by one's conception of this relation.

Politics and ethics meet, indeed, in this problem, for it is the fact that in the politics of a community individual minds are constantly in communication and contact that gives so important an ethical character to political discussion, while, on the other hand, the problem of bringing the individual interest into line with social welfare enters into every ethical issue. In religion again the relation between minds presents its difficulties. A few words may be said concerning the religious bearings of the problem.

Religion appears to thrive where social contacts are close, yet the deepest and purest religion seems to be consistent with complete absence of social contacts in the ordinary sense. In mysticism there is a "flight of the Alone to the Alone." Christianity combines, as perhaps no other religion does, both mystical and social aspects of religion. Its mysticism, however, is marked by a strong sense of the personality of God, so that even in the mystical aloofness from ordinary social intercourse, all that is essential to social existence, every essential element in the relation between minds, may be present.

Mystical communication of the Christian type is, then, an extraordinary case of the contact between minds. On the other hand, the social aspect of Christianity is distinguished by the part which the Mediator plays in human relations. The presence of the living Christ in the social activities of this religion puts a mystical complexion upon them. This dual peculiarity of Christianity, giving scope as it does to both social and mystical ambitions, undoubtedly explains why in one form or another it has satisfied so many types of personality. And the Christian emphasis on the intelligent and loving Other, present both as the object of prayer and the instigator and consecrator of social

works, makes the problem of the knowledge of other minds of especial importance for an understanding of Christianity.

The relation of the individual human being to Christ and the transition of this relationship into the mystical relation to God offer special problems for a complete study of the relation between minds. But these and the other problems indicated are not within the province of this essay, which will be confined to what may be called the epistemological problem of our knowledge of other minds. So confined, the question is still a large one. It has two sides. It involves a psychological and a logical problem. These two problems must be clearly distinguished. The solution of one is by no necessity the solution of the other. The psychological problem is to discover how we come to know other minds, assuming that we ever do know them. The logical problem is to give a proof that other minds exist. Both problems are important philosophically, and attention will be given to both in this discussion. It will be clear that the logical problem cannot be fruitfully considered unless the psychological problem is given sufficient emphasis.

Solipsism is the denial of two beliefs of common sense. The first of these is the more general. It is the belief that the individual in his experience is in contact with a world external to himself. This does not necessarily mean that the world is entirely independent of himself. In fact there is much to be said for the view that our common-sense belief *does* regard the external world as in large measure dependent upon the self, though not in the specialized sense of the Berkeleyan idealist. Perhaps only a very chastened, even disillusioned, individual is able to reach the degree of self-abrogation necessary

to believe that the world is entirely independent of *him*. But it is fairer to say that the common-sense view simply does not specify whether or not the world is dependent or independent. The world is external in the sense that it is *not* the self, it is *another* being: it has its roots down elsewhere than in the self, though it may have its roots there too. Or, put in a slightly different form, the common-sense view of the individual's relation to the world is that the world is an exceedingly great thing and that he is a part of it, rather than that he himself, however great he may be, includes the world as a part.

The second of the beliefs of common sense which solipsism denies is the belief that among the existences which make up the "rest of the world" there are some which each individual recognizes as resembling himself in those characteristics by virtue of which he regards himself as a mind. It is possible to imagine a form of solipsism which is limited to a denial of this second belief of common sense. For such a solipsist there are other real beings in the universe besides himself, but none of these other beings is possessed of the characteristics of a mind. "The external physical universe exists, yes, but no other minds but mine." That is the cosmology of such a, probably mythical, individual. In particular, he is the only being who is conscious, and hence he is the only being who enjoys the manifold forms of mental activity which give to consciousness its variety, its interest, and its value. The present essay is mainly written with only this limited form of solipsism in view. The existence of the external physical world is for the most part assumed, and no detailed proof of the existence of the external physical world will be given. But we shall have to face the possibility that in making this assumption we are begging the question. If our only logical ground for

belief in the physical world were the "agreement of observers," for instance, then to argue from the existence of certain physical facts to the existence of minds, as many arguments do, would obviously involve a vicious circle. This difficulty will be discussed in chapter iii in connection with arguments of this type. Apart from this difficulty the problem of the existence and nature of the physical world is a separate problem from the problem of this essay and will be in general avoided. There is however a characteristic "frame of mind" or "mood" which any form of solipsism involves and in the rest of the present chapter we shall consider this solipsistic frame of mind in its general features, before coming in the next chapter to a detailed consideration of our more specific problem.

What we have to do here first is to offer what may be called an apology for solipsism, not perhaps as a final view of reality, but as a possible interpretation of the world. Once for all philosophy should renounce the argument *ad hominem* which attempts to condemn any view of the universe by attaching to it the epithet "absurd." Nothing conceivable is absurd for philosophy, and solipsism, like any other metaphysical view, must be given its day in court. Without this reflective "airing," the unanimous rejection of solipsism by philosophers has too much the appearance of a psychological repression. They seem to say, "Beware of solipsism, for that way madness lies." Can we detect a hint of fear in our own hasty rejection of this view? Is there perhaps a vague suggestion that it *might* be true, and then—the very end of all our cherished beliefs? I think that it must be confessed that this is usually true. We hustle the suggestion out of mind, committing it to the outer darkness as we would a plague. We are sure that we are right in

so doing, but we scarcely dare trust ourselves to give the matter full consideration: "Better not; we might be drawn in by the subtle lure of it." Thus, solipsism becomes a fugitive philosophy, yet continues to haunt us as a bogey, a philosophical hobgoblin, lurking on the borders of the reflective consciousness, ever on the alert to lure away some unwary, overimaginative speculator and thereby capture the historic instance hitherto denied to it.

Of course, there may have been historic instances of solipsism, for a solipsism logically held would come to light only by the merest chance. A true solipsist would have no impulse to communication, for in his view there would be none to whom he could communicate, and so philosophers who express themselves are *ipso facto* believers in other minds. What we propose here then is to make the venture of attempting to comprehend the point of view of such a possible solipsist, and to get an intuition of what reality would be like from such a point of view.

Perhaps the poets have been more liberal than philosophers in this matter. Shakespeare's "We are such stuff as dreams are made on, and our little life is rounded with a sleep," suggests the solipsistic mood, though it is spoken on behalf of a plurality of minds. Or again Lucretius in his description of the point of view of an Epicurean god, who stands apart from life and views all that goes on therein as episodes in a play enacted before him, gives us a hint of the mood of one for whom the sting of reality has been drawn. We are reminded of the words of Ecclesiastes, "Vanity of vanities; all is vanity." Perhaps the sincerest solipsism is a mood of disillusionment. Death of a loved one or other grave disappointment makes us feel that the "bottom has dropped

out of things." Solipsism is just the view of reality with the "bottom" dropped out. But it need not be an attitude of utter despair. There are times in life when we are thrown back upon ourselves. We cannot look beyond for salvation. The value of living must be discovered in ourselves alone, and not in any external sharing of our experience with others. Sympathy at such a time is obnoxious; it is worse than nothing. It would be better if it were not: would that there *were* no others to contemplate our misery! We concentrate upon the inner fact, attempt to recover our self-possession, our self-importance, feeling that without this inner being reality is naught. For the moment we are careless whether reality be indeed only ourselves, if only we can "save our souls alive." It would seem as though the recognition of the essential loneliness of the individual human spirit were the sign of maturity. No one can see life as *we* see it. No one can feel *our* pain. Perhaps worse, no one can experience *our* ecstasy. Within its own limits, such recognition is the "end of happiness but the beginning of peace." And therein lies the paradox of such solipsistic moods. They are as truly moods of self-renunciation. That is the peculiar quality of mere self-assertion. In denying our world we deny our own vital interests, a clue, indeed, for the believers in other minds, yet no refutation of solipsism, for just this complete illusion of reality may be truth.

So much genuine solipsism we find in merely passive experience, but perhaps the most coherent solipsistic moods are those of the creative life. Nietzsche is never weary of saying that the "free spirit," the bridge to the superman, is a lonely being. He is lonely in more ways than one, but perhaps he is most alone in those acts by which he forges new reality. Discoverers, inventors,

originators, creative thinkers, work in isolation, and much of what counts for conceit in the creative artist is simply the conviction of the imperious need of privacy for productive thought. In the aesthetic consciousness and most of all perhaps in the creative mood of the artist there is an almost perfect semblance of solipsism, for here one is absorbed in the world as *my* thought, *my* fiction.[1] Generalize the mood and the result is solipsism itself.

So much at least we can do toward creating for solipsism the sympathetic appreciation that is essential for any philosophical evaluation. We might perhaps add extensively to these instances where the real intent of the mind is completed within its own bounds. The charge of absurdity may therefore be laid aside. It cannot be said that a solipsistic philosophy is meaningless or devoid of content. We are now ready to consider more critically the view that the world is only a dream, a mirage, a phantom, a pure creation, or what not, of our own fertile imagination.

First of all we note that what is most incensed in us by the solipsistic philosophy, and so most antagonistic to it, is not our reason but our will. That is the meaning of the fact which we have pointed out that we scarcely dare submit the question of solipsism to the decision of our reason for fear reason will be satisfied at the expense of our will. It is therefore clear that the Fichtean solution for solipsism goes right to the heart of the question. For Fichte the problem of the existence of other minds and indeed of the external physical world is a moral problem, and our affirmation of such existences is an ex-

[1] Logically, of course, many of these moods imply belief in other minds. My object here, however, is simply to interpret the moods in which solipsism is an acceptable philosophy, whether true or not.

pression not of logic but of the moral will. The vocation of man is to listen to the voice of conscience and "to obey it honestly and unreservedly, without fear or equivocation." As soon as one reflects upon the edict of conscience,

> life ceases to be an empty play without truth or significance. . . . It is absolutely true, without further proof or confirmation—nay, it is the first truth, and the foundation of all other truth and certainty, that this voice must be obeyed; and therefore everything becomes to me true and certain the truth and certainty of which is assumed in the possibility of such obedience.[2]

Hence, I am led to affirm the existence of other minds and of the physical world independent of myself, for both are necessary to the fulfilment of my moral duty.

> There appear to me in space certain phenomena to which I transfer the idea of myself;—I conceive of them as beings like myself. Speculation, when carried out to its last results, has indeed taught me, or would teach me, that these supposed rational beings out of myself are but the products of my own presentative power; that, according to certain laws of my thought, I am compelled to represent out of myself my conception of myself; and that according to the same laws, I can transfer this conception only to certain definite objects. But the voice of conscience thus speaks: "Whatever these beings may be in and for themselves, thou shalt act toward them as self-existent, free, substantive beings, wholly independent of thee. Assume it, as already known, that they can give a purpose to their own being wholly by themselves, and quite independently of thee; never interrupt the accomplishment of that pur-

[2] J. G. Fichte, *Vocation of Man,* Bk. III, sec. 9. The further quotations in this paragraph and the next are from the same section.

pose, but rather further it to the utmost of thy power. Honour their freedom, lovingly take up their purposes as if they were thy own."

The physical world also is affirmed for similar reasons.

I apprehend these things through want, desire, enjoyment. Not by mental conception, but by hunger, thirst, and their satisfaction does anything become for me food and drink. I am necessitated to believe in the reality of that which threatens my sensuous existence, or in that which alone is able to maintain it. Conscience enters the field in order that it may at once sanctify and restrain this natural impulse. "Thou shalt maintain, exercise, and strengthen thyself and thy physical powers, for they have been taken account of in the plans of reason."

Fichte's view provokes two sorts of criticism, the one that it assumes too much and the other that even granting its assumptions it does not give us *proof* of the existences in question. It seems a doctrine *in extremis*. We should hardly resort to basing metaphysical truth upon moral grounds unless we were in the last ditch. "Surely," we think, "we are not so doubtful as *that* of the existence of other minds." But this criticism depends for its force much upon the point of view. To Fichte it would seem doubtless the cry of the faint-hearted. He admits, indeed, that the view makes of our beliefs in other minds and in the external physical world a "faith founded on a faith," but to him that is hardly a defect. To his militant moral spirit, the less certain we are, the less forced we are, and so the greater freedom, and the greater prize of victory. That is perhaps a matter of taste, but we make note that not here do we find the *disproof* of solipsism. On the other hand, Fichte assumes more than most

of us would be willing to admit concerning the "edict of conscience." Few find in their experiences the grounds for applying to themselves the words of Fichte, "This voice of conscience announces to me precisely what I ought to do, and what leave undone, in every particular situation of life." Far from it, but even for those who agree with Fichte in some sense, for instance in the sense that no sincere moral individual remains in doubt as to what is right for *him*, since doing right only means doing the best that one can, still the moral law is not revealed *in abstracto*. Its recognition only comes through acquaintance with the facts, or what are believed to be the facts. The belief in other minds as centers of feeling and purpose seems to be the condition of a recognition of the moral imperative to treat them as free, autonomous, as "ends in themselves." Thus Fichte seems to reverse the order of logic in this instance.

This latter criticism of Fichte is, I think, valid, but I should infer from it not that Fichte is refuted but that he has not here expressed himself clearly. For there is a deeper view which Fichte represents and which we must consider. This deeper view takes the moral imperative in a very wide impersonal sense, a sense in which it may perhaps be recognized as prior to all acknowledgment of fact. Thus, I take it to be Fichte's view that if we were confronted with the alternatives of a dream world and a world of actual external fact, the reason which would determine our decision between these alternatives would not be a logical reason, but a moral one, namely, the reason that a world of actual external fact calls for real activity, real effort, real sympathy, real understanding, while a dream world does not. The real world is a world of real values; it is therefore more valuable than a dream world, and we ought to

affirm it. Likewise, a world solipsistic in our second sense, namely, as having only *my* consciousness in it, and no other minds, is a world less valuable, less worth taking as real than a world of many minds. And this, according to Fichte's view, is our reason for believing in other minds: our deepest intuition is that we ought to choose the best, and since the world of other minds is better, that is to say gives greater scope to moral and other possibilities of value than a world of one mind only, we are under moral compulsion to believe in other minds.

As we observed before, Fichte does not give us in his argument any *logical* refutation of solipsism; it is a practical and moral refutation that he offers and as such we must take it. He puts the belief in other minds and in the external physical world in much the same position as that in which James puts belief in God in his essay "The Will To Believe." The option of solipsism or its denial is a "momentous" one, and it is forced. There is no middle view. Our decision rests on reasons of value. James affirms our *right* to be determined by such reasons in our beliefs, while Fichte insists that it is not only a right but a *duty* to be so determined. Thus Fichte discovers a moral coerciveness that gives the semblance of logic which James's "will to believe" lacks.

It must be admitted that if there were no better reasons for believing in the external physical world and in other minds than this, we should all be led in the above manner to deny solipsism—for practical purposes. Solipsism is an idle view of the universe, an ontological dilettantism, which is repugnant to the moral sense of mankind—for any length of time. It is possible of course to discover apologies for idlers, but only for part-time idlers. Full-time idlers who extend their moral holidays *ad infinitum* have no esteem, and when idleness is carried

to the length of making all the universe a private dream, even the direst reprobate among us would find such flabbiness of will repugnant. And doubtless to reveal this universal and coercive moral motive for belief in an external order is a philosophical result of no mean proportions. We acknowledge the universe because it serves us individually better to acknowledge it than to deny it; we acknowledge it because it gives us material which we can turn to advantage in our desire for self-realization. Yet one cannot restrain a feeling that there is here some distortion of facts and relations. Though religiously inappreciative, Carlyle was metaphysically right when to Margaret Fuller's exclamation, "I accept the universe," he retorted, "Gad, she'd better!" The universe has us in its grip, and no one of us can take it idly. We can interpret it: we can fit it into various and motley conceptual jackets, but the one thing that we cannot do is to deny it. As Fichte in effect admits, real hunger implies real food. We have to take the question of food seriously because we are forced to take our hunger seriously. Food may be only ideas; it may even be only our *own* ideas, but food we must have. There is no blinking that. It is a fact which each of us as an individual is "up against." And life is replete with just such *factual* imperatives. There is nothing moral about it at bottom because the imperative is inescapable, though the willing acceptance of the fact may make a moral difference.

What I am suggesting is that solipsism is refutable on its own grounds, because the distinction between dream and reality is one forced upon us by the facts of our private experience. It is not a distinction that can be wiped out by interpretations.We can make our interpretations. I can call all the universe my self. But in doing so not one iota of the universe is denied. If anything

is lost, it is myself, for I am lost in a transcendental egoism which swamps my individuality. But even *I* am not lost, though I may momentarily have lost my bearings. Life at once teaches me to recover the distinction which I have lost. Life does not dictate the terms: I may rename the distinction that between my larger and my narrower self, but life dictates the principles and enforces the distinction. In any case solipsism in the sense in which we meant it when we raised the question is impossible. I hold that it is logically refuted, but if it is not, then it is so transmuted that its identity with what we originally intended is merely verbal, and hence uninteresting.

There is of course nothing new about this refutation of solipsism. It is the answer which most idealists readily give when the charge of solipsism is brought against them, though it may be that the answer has here been given a somewhat realistic turn. It seems to me that solipsism in the broader sense is definitely untenable for the reasons given, but the case is not altogether the same with solipsism in the narrower sense of disbelief in other minds. We are in the same way forced to acknowledge the reality of other "persons," in *some* sense of the word "persons," but we are not forced by the exigencies of life, so far as I can see, to regard these other persons as minds in precisely the same sense as we are minds ourselves. In the succeeding chapters we shall carefully investigate the possibilities of *proving* the existence of other minds on logical grounds. I believe that the evidence gives to this proposition an extremely high probability, but certainty can hardly be claimed in logical strictness. There is a point perhaps where probabilities are so great that there is psychologically no longer any distinction preservable between the highly probable and

the altogether certain. Doubt, in other words, may have its own *minimum sensibile*. It may be that this explains why none of us ever does doubt *in the least* the existence of other minds. But this is not strict logical certainty, and it is also possible that the sense of perfect assurance that we universally have concerning the existence of other minds is due in the last analysis to a moral motive. Our highly probable evidence that other persons exist who are like ourselves even to the degree of possessing conscious feelings and awareness of themselves *may* be treated by us as certain because we are forced to make a definite decision. We cannot remain in suspense, because morally the alternative is momentous, and a decision which is definite and unconditioned from the point of view of our will is hardly to be distinguished from one which is certain from the point of view of our intellect. However, it seems to me that this possible explanation of our feeling of certainty is scarcely needed. In offering it I have the sense of grappling with an imaginary problem. We are on the whole credulous rather than doubting animals, and if we are given probable evidence for any proposition, we are ready to believe it, if no prejudices have been previously established. And on the whole it is well that such is the case.

CHAPTER II

MENTAL CHARACTERISTICS

The permanent instant command of our whole view is perhaps the distinguishing mark of our species. HOCKING.

A NECESSARY preliminary to the direct investigation of the problem of our knowledge of other minds is the consideration of certain psychological questions which even at first sight are seen to be involved in that problem. We must therefore raise these questions at once, and if it is impossible to give satisfactory answers to them, because of the difficulty of distinguishing the issues involved and of framing answers which shall satisfy every objection, at least it should be possible, and is, in fact, necessary, to make clear the psychological ideas which enter into the later discussion, and also to state the psychological assumptions which will be made the basis of later arguments.

It may be a matter of opinion whether clear psychological ideas are essential to the study of every metaphysical problem, but the problem of how other minds are known is one which cannot be investigated without raising fundamental questions concerning the nature of minds and their operation. Something approximating to a clear definition of mind is necessary before we can even frame our question intelligently. We do not know what our problem is until we have gained some idea of what we mean by mind. Morever, until we have our fundamental psychological ideas clearly before us the difficulties involved in the problem will not be apparent. Both the problem and its difficulty may vary exceedingly with different philosophers because of the

widely different views which they have held in regard to the nature of mind.

The truth of this may be illustrated by the case of behavioristic psychology. There is no need to deny the scientific advantages of a psychology which relies wholly upon data, chiefly experimental, which can be observed by a number of individuals at once. The keynote of behaviorism is the emphasis on explicit stimulus and response, and in so far as it is able to reconstruct psychology upon this basis, it promises to do much both in rendering our present knowledge of human nature more exact and in bringing to light laws governing human behavior which are not at present known. The fault of behaviorism lies not in what it advocates but in what it denies. Strictly speaking, behaviorism denies that the method of introspection, that is, the method by which an individual scrutinizes his own conscious states and processes, has any legitimate place in psychology, or can bear any good fruit. In fact, behaviorism assumes, in an unscientific manner, that consciousness either does not exist, or that it plays no effective part in the reactions of the individual to his environment. It would be quite beyond the power of anyone to be justified in asserting dogmatically that the method of behaviorism may not eventually prove the most effective for solving all psychological questions. Experience alone can determine this. But it is certain that at present the method of behaviorism is not sufficiently developed to perform the subtle analysis which is required to put ethical, religious, aesthetic, and epistemological problems in their psychological setting. There seems to be some good reason to believe that the method of behaviorism, confined as it is to examination of externals, can never reach these problems, which are essentially in-

ward. They seem by their very nature to demand self-analysis as a method of investigation.

However this may be, the thoroughgoing behaviorist will have no reason to feel any problem in our knowledge of other minds. The only possible meaning which our problem can have, in terms of behavioristic psychology, is the following. Are there other physical organisms besides these which we call our own which respond as these do when they are put into similar situations and subjected to similar stimulations? Thus framed, the problem has not the slightest difficulty, if indeed it may be called a problem at all. For each one of us has and knows he has sufficient and reliable data to give a positive answer at once. Each one of us knows that the physical organism which he calls his body is but one of similar organisms which behave very much as his does when put into like situations.

We may therefore conclude that if the attempt is made to discuss our problem in terms of behavioristic psychology, either the problem disappears because it has become meaningless, or it has become a problem whose solution offers not the slightest difficulty and can be solved by the least observant and most unreflective of individuals. This bears out our contention that fundamental psychological ideas have a direct bearing on the formulation and difficulty of our problem, a contention which doubtless required no such proof. But behavioristic psychology should, at least, be preëminent in affording data of a sort which many other formulations and solutions of our problem have seriously demanded. However mind may be variously defined by different philosophers, it will usually be agreed that one of its characteristics is to be intimately associated with a physical organism, throughout a part at least of its

history, if indeed a mind and a physical organism are not at bottom the same thing. And many, if not all, attempts to solve the problem with which we are concerned make important use of this fact, together with the fact that a considerable number of such physical organisms are known to exist. Now since it is usually held that the best authenticated instances of mind are intimately associated with human bodies, which have characteristic structure and activity, behavioristic psychology, which is especially interested in the scientific study of the characteristic activities of human beings, should be able to offer very precise and important information to be used in the solution of our problem, though the problem itself may be formulated on the basis of quite different psychological ideas.

The need for a definition of mind is clear. It is not necessary to make the definition exhaustive for the purposes of this discussion, but the chief characteristics which are attributed to mind should be mentioned, together with reasons for holding that these characteristics are rightly regarded as part of the definition of mind. Two of these characteristics have already been mentioned. We said that behaviorism often denies that consciousness exists. This indicates that there is some reason for holding that consciousness is one of the characteristics of mind. We also referred to the general belief that a mind is intimately associated during a part at least of its history with a physical organism.

There is something more to be said on each of these points, and then we may go on to other characteristics of mind. It may be said, however, that two sorts of characteristics are important for our problem. On the one hand, it is necessary to point out a group of characteristics which would be sufficient to identify that which

possessed them as being a mind, and, on the other hand, we shall be especially interested in characteristics of mind which seem to be such that, while no less essential to its nature, they may be proved to be the characteristics of existing beings by means which are available to a mind other than the one which possesses them. If we do not include the first group, we shall have no means of deciding whether what is supposed to be a mind really is one. If we omit the second group, we neglect means by which the existence of other minds may be proved.

1. *Association with a body.* The minds with which we are familiar are associated with bodies. This will be generally agreed. Confusion and doubt arise only when the nature of this association is considered. Yet this is a very important question in relation to the problem of how other minds are known to exist, as will later be shown in detail. Clearly the possibility of proving anything concerning the existence of minds will depend upon giving a trustworthy analysis of the relation which minds have to bodies. But this relation is certainly very obscure, and therefore any theory which rests heavily upon the evidence that physical organisms exist may be expected to have many difficulties to contend with.

Two difficulties of a general nature may be mentioned. Unless the existence of the physical organism, or of some of its characteristic reactions, can be shown to depend, either logically or causally, upon the existence of the mind, it is by no means clear how the existence of physical organisms with characteristic reactions can be used as a ground for proving the existence of minds. Such dependence is often asserted, but it is specifically denied by behaviorists, as it is by all mechanists and indeed by parallelists as well. The proof of this depend-

ence thus constitutes a difficulty from which there is no easy escape, though it need not be assumed without investigation that the proof is impossible to discover.

Unless this dependence of bodily processes upon the mind can be proved, arguments which use the evidence "that physical organisms with characteristic reactions exist" as a premise to prove that other minds besides the one directly known by a given percipient exist must depend upon the fact that the mind which is thus observed appears *along with* the physical organism with which it is associated. But when the nature of the association is simply this, not only is there the logical difficulty of proving that minds *must* exist wherever physical organisms of this character exist, but there is a further difficulty as well. The mind which is directly observed is associated with a human body. Other human bodies exhibiting reactions similar to those of the original human body may be associated with other minds. But is there any reason to suppose that minds can *only* be associated with *human* bodies? It is often held that minds are associated with other than human bodies. When this is done, it must be done on a different basis from the gross analogy between bodies, and, on the other hand, when the existence of such non-human minds is denied, it must be done because there is some reason to suppose that a human body has some special probability of being associated with a mind.

Thus either from the willingness or from the unwillingness of different thinkers to extend the region of minds beyond the realm of human beings, the conclusion can be drawn that it is not all the characteristics of a human body which are used as a basis of analogy, but only some of them. This must be because some of the characteristics which a human body displays in its in-

terplay with its environment are especially indicative of the fact that a mind is associated with it. But why should one set of characteristics be more indicative of association with a mind than any other set? No doubt, there is some reason for making this selection, and if there is, it would seem that the discovery of this reason is an essential part of the problem.

2. *Consciousness.* The second characteristic of mind which we noted was consciousness. As we observed in the case of the behaviorists, the fact of consciousness has sometimes been denied. The reason for this is no doubt what has been called the "diaphanous" quality of consciousness, by which it is meant that when the attempt is made to fix the attention upon conscious processes in such a way as clearly to distinguish the quality by virtue of which they are said to be conscious, this quality is found to be curiously elusive, so that all the ordinary observer is able to report definitely about is the quality of the *object* of the conscious process. Thus C. D. Burns says: "If I know mental process directly, all I seem to know is that there is such a reality; for as soon as I try to discover *what* it is, it disappears. This is what is called the transparency of mind or mental process."[1]

However, it can, I think, be shown that mental processes are not entirely transparent, by the simple process of pointing out instances of mental processes which are so general that most men will readily admit that *they* exist. As Burns points out, "Most men will admit that, besides the book which they see they are also aware of their *seeing* the book."[2] If this is true, I do not see why Burns should conclude, as he does, that "introspection

[1] *Contact between Minds,* p. 14.
[2] *Ibid.,* p. 14.

can discover nothing but the object 'in' the mind," since introspection clearly has discovered the mental process called "seeing." To be sure, as Broad points out,[3] the way in which the mental process is discovered is not the same as the way in which objects are discovered. But this is due to the fact that mental processes and objects are radically different kinds of reality, not to the alleged fact that mental processes are transparent while objects are opaque. What can be truly said is that mental processes are much more difficult to identify than objects are. One reason for this is that they are essentially mobile, active, and liable, for this reason, to slip away before their characteristic features are noted by the observer.

As to the quality of consciousness itself, however, it may be quite proper to call it diaphanous or transparent. That this is so appears from the fact that it is so difficult to be clear as to just what is meant by consciousness itself, but an attempt must be made to do this. A more precise term for consciousness is awareness, and it will be convenient to use this in cases where there might otherwise be ambiguity. For the term consciousness is often used as equivalent to mind with all its characteristics. Things are said to be "in" consciousness in the same sense as they are said to be "in" the mind. What we are here discussing is a specific characteristic which mind possesses, the characteristic which is sometimes referred to as "mere" awareness.

The characteristic of awareness can certainly not be defined, either in terms of anything else or by description. The same thing might be said of a quality such as redness, but there is a difficulty about identifying awareness which does not trouble us in the case of redness, a difficulty by virtue of which the former is called

[3] *Mind and Its Place in Nature,* chap. vi.

diaphanous while the other is not. Instances of redness can be pointed out. They can be held continuously before the mind until the characteristic which men have agreed to call redness has been clearly grasped. But this is not possible in the case of awareness. All that can be done to show that the characteristic of awareness is understood is to display the ability to tell when entities possess and when they do not possess it. It is generally agreed that bodily processes such as digestion are usually not conscious processes, while other processes such as working a problem in arithmetic usually are.

If it is impossible to define or describe awareness, and not easy to indicate determinate instances of it, we can at least give illustrations. Alexander has named two types of awareness: namely, awareness of objects, which he calls "contemplation," and awareness of mental process, which he calls "enjoyment."[4] Three illustrations of awareness may be given under each of these types. Under contemplation, we may note (a) the case of awareness of a sense datum, expressed by the words, "I am aware of this patch of red"; (b) the case of awareness of a memory image, expressed by the words, "I am aware of that red patch which I saw yesterday"; (c) the case of awareness of a proposition, expressed by the words, "I am aware that two and two make four." These three forms of contemplation might be called, respectively, sense perception, memory, and reflection. Under enjoyment may also be noted three types of awareness: (a) the case of awareness of an awareness, expressed by the words, "I am aware of this awareness of red"; (b) the case of awareness of a feeling, expressed by, "I am aware of this feeling of pain in my foot"; (c) the case of awareness of an act of will, expressed

[4] *Space, Time, and Deity,* Vol. I.

by, "I am aware of raising my arm." These three types of enjoyment are distinguished on the same lines as the traditional types of mental activity: namely, cognition, feeling, and conation. They may therefore be called respectively cognitive awareness, feeling type of awareness, and conative awareness.

This analysis of types of awareness is included here simply to make quite clear and definite what it is that we are talking about when we speak of a mind as conscious. The details of the analysis have no particular bearing upon what follows.

3. *Mental Process.* The third characteristic of mind which we shall mention may be called the possession of various kinds of mental process.[5] An enumeration of the different kinds of mental process would be out of place here. It is sufficient to say that the fundamental types of mental process are those which have been classified under the headings: cognition, feeling, and conation. It is important to remark, however, that mental situations do not usually fall exclusively under one of these heads. Perceptual situations are dominantly cognitive, but they have as a rule feeling elements, and certainly all are in some sense actions of the mind.

There is perhaps some reason to question whether feelings are properly described as processes. It is quite general to speak of "states" of feeling, and it may be that this is due to a real difference between feelings and mental processes such as perception and willing. In this respect, feelings seem to be more like the objects of per-

[5] G. E. Moore has criticized this term to the writer on the ground that a process implies a succession of states of that which is said to be in process, whereas the mental phenomena designated by the term "mental processes" often involve no succession. The criticism is well taken, but an alternative does not present itself.

ception. When I feel a sharp pain in the foot or feel warm all over, the pain and the warmth appear to bear more similarity to sense data than they do to mental processes. But the "feeling" or awareness of pain or warmth is the mental process, while the latter are either the qualities of the awareness or the "objects" in the sense of that of which we are aware. Against this similarity of feelings, or of constituents of feelings, to sense data may be placed a marked dissimilarity, which is of especial importance for the present inquiry. There is a marked difference in the intimacy of sense data and of feelings. Whether or not sense data are mental is a question upon which philosophers differ, but there is never any doubt expressed that feelings are subjective. Sense data and feelings, indeed, appear to mark extremes in regard to the intimacy which is assigned to them, within which mental processes other than feelings occupy an intermediate position. It is quite plausible to believe that sense data are not in fact mental. There appears to be no conclusive reason for believing that in sense perception the mind is not in contact with a form of existence which is external to the mind itself and wholly different in character from the mind. It does not seem plausible, however, to say that processes such as cognition and acts of will are not mental, yet the one who thinks and wills may enjoy a certain degree of detachment from his acts, so that it has been said, though perhaps only in a metaphor, that "it is not I who do these things, but the perfect will of God which worketh in me." But it is certainly I who suffer sharp pains and feel warm. In intimacy, therefore, feelings are clearly distinguished from sense data, even when their character as mental process is overlooked. This peculiarity of feelings gives them a prominence in the problem of our

knowledge of other minds. If the existence of other feelings than our own can be proved, then surely other minds than our own exist.

4. *Emotions.* But as I have remarked, none of the processes of mind are usually free, in the actual case, from some intermixture of feeling. It is one of the characteristics of mind, about which something must soon be said, that many diverse elements are associated and in some way held together in wholes. And it is also characteristic of mind that particular elements in these wholes often, and perhaps usually, dominate or color the whole, so that the name of the particular element is often given to the total experience itself. Thus, in the perceptual situation there are probably elements of feeling present, due no doubt to the fact that we never attend to anything which has not some, however trivial or unacquisitive, interest for us, but the perceiving of the sense datum or the physical object is the dominating element in the situation. We therefore call it a perceptual situation, and in analysis tend to neglect the other elements which are present.

As our fourth characteristic of mind we shall mention the most striking instance of the power of particular elements to dominate the mental situation: namely, the susceptibility of the mind to emotions of various kinds. The term "emotion" may be applied to at least three different things, though it is perhaps only with reference to the second of these things that the usage is proper. (a) It may be applied to what I have chosen to call feelings, such as feelings of pain, of warmth, and the like, as well as to feelings which get their names from the major emotions, such as fear, love, and rage. (b) It may also be applied to mental situations dominated by

feeling in the manner above suggested, and in this sense there might be emotions of pain or pleasure quite as well as emotions of rage and fear, though an emotion of warmth would be a rare and remarkable occurrence. (c) Finally, by emotions may be meant mental systems, incorporating diverse elements of thought and act and feeling, and enduring for considerable lengths of time, but constructed, not only around existing objects in the external world, but about the emotions of the second type which these objects have a peculiar power to arouse. Emotions of this type are very common, and it is certainly characteristic of minds to possess them.

Emotions of the third type may be called emotional systems, and we may say that emotional systems, while capable of an infinite number of variations both in quality and in complexity, are of three main types, depending upon the major emotion of the second type which plays the leading part in its development. What we are here especially concerned with is the fact that emotional systems, whether based on fear or on rage or on love, have distinct forms which bear an essential relation to another mind than the one which possesses the emotion. The case of fear illustrates this most clearly. Fear systems may be developed around non-mental objects. Such a system would be a fear of high places, or of open spaces, or of dark alleys. But fear systems perhaps more commonly gather around other persons, and while there are certainly many instances of fears of individual persons, the highest development of a fear system seems to be the case of a general fear of all social situations. This fear receives the name of the "inferiority complex," and plays an important part in the history of most people.

It may be doubted whether emotional systems based

on rage ever attain the degree of development of fear systems, nor is the distinction between rage systems grouped about non-mental objects and rage systems associated with persons as clearly defined as in case of fear. Emotional systems based on love, however, reach a very high development and play an extremely important part in the history of a mind. Moreover, love systems centering in persons appear to have distinctive characteristics which set them apart from those centering in non-mental objects.

5. *Elasticity.* We have now to mention several characteristics of mind which may be called *noetic powers.* Under this head a variety of mental capacities might be enumerated, but fundamental to them all is the power which the mind displays of holding many parts together in one whole. For want of a better word, I shall call this fundamental power of the mind its "elasticity," signifying by this term the mind's capacity for stretching over what may be called a mental "area" without breaking its unity. Thus Sturt says:

> A human soul is very large, composed of many parts which normally work together so that they form a unity, but may be dissociated pathologically, so that they are evidently separate, or even stand in mutual opposition; it has various levels differing in the various degrees of awareness which they possess; it has many faculties and functions, some of which are understood more or less clearly, while others are still unexplored; its activities are incessant, potent and multiplex; it is subject to growth and decay, and its perfection is the result of a long process of development and ripening; it shows in its present condition traces of the past and carries with it the record of an adventurous life.[6]

[6] H. Sturt, *Principles of Understanding,* p. 29.

To call the mind or the soul large, or to speak of it as stretching over an "area," is evidently to use spatial metaphors which do not precisely fit, but the characteristic of the mind which is referred to should be plain enough. As to the unity which is implied by the word elasticity, it may be extremely tenuous, but so long as a multiplicity of elements is dynamically related so as to form a whole which is the mind, some unity is characteristic of the mind, and in virtue of this we call it elastic. This characteristic of the mind may be illustrated briefly by three examples: (a) sense perception, (b) memory, and (c) synoptic vision.

(a) In the perception of a sense datum, as for instance a red patch, there are an infinite number of spatial parts of the patch, if it is a continuous sense datum, yet all these parts are *observed* as parts of one whole patch. Now, if it were said that the continuity of the sense datum is *due* to the synthetic powers of the mind, the realist would object on the ground that there is no evidence that this is the case. The sense datum might be quite literally extended whether or not the mind perceived it. But this is not what we are saying. We say that the mind has a power of apprehending many parts in one whole, and this seems certain because without the possession of such a power, the mind would be unable to perceive so much as a red patch. This is an assertion to which the realist must grant assent.

(b) The temporal extension of the specious present shows the same elasticity of mind, the power to hold in one conscious span a multiplicity of elements, though here the elements are arranged in a temporal order, as compared with the spatial order above referred to. This is not technically a case of memory, of course. In memory, elements which formed constituents of some pre-

vious mental situation are revived, and related with the elements of the specious present, by compresence in the same conscious span. By virtue of memory the mind has a command of its history; its past comes to play a part in its present. The elasticity of mind is therefore illustrated in memory, though not in quite the same way as in the specious present.

(c) Our third illustration of the elasticity of the mind is more significant. The mind has in varying degrees the power to secure a synoptic vision of a complex whole involving a more or less complicated system of terms and relations. Thus Sturt says:

> The tune inventor is like a spectator who embraces a wide field of vision with a momentary glance. This is the difference between the big and the little inventor; one sees much at a glance, the other little. The synoptic range of the greatest inventors is extraordinary, almost incredible. Mozart asserted that he could cognize a long complicated composition all at once; not in succession, like other men. All great schemers in every department, all great geniuses in short, have this amplitude of vision. All works of art, pictures, poems, romances, even scientific treatises, may be judged on this basis. Do they show unity of plan? Were they "forged molten"? as someone has expressed it. Works that are halting in purpose, disconnected, diffuse, and digressive are products of intelligence below the first rank.[7]

But in greater or less degree every mind has this power of synoptic vision. Rare as is the extreme case illustrated by Mozart, the opposite extreme may be said to be even rarer. It is typical of conscious life to include in the view of any moment a variety of detail. Some-

[7] *Principles of Understanding*, p. 57.

times this is threaded, so to speak, with a pattern or form which ties the detail together into a more manageable whole, but often the pattern will be lacking, or will include only a portion of the view of the moment. The rest is simply there, chaotically. Some element, or group of elements with a scheme running through them, will be at the focus of attention, but beyond this will lie innumerable elements of which there is a greater or less marked awareness. Synoptic vision is characteristic of the mind, and illustrates what I have called its elasticity.

6. *Attachment.* In spite of the elasticity of the mind, it still holds good that some of the elements which enter into the total complex which *is* the mind are marked by a greater intimacy than others. As we noted before, this intimacy appears to be greatest in the case of feelings, though upon this point it is possible to assert with some plausibility that the most intimate mental constituent is not the feelings themselves but rather the "active" element which is present in feelings, as well as in other processes. This I take to be the same as that which I have referred to as the awareness which is present in all consciousness. James puts it thus:

> What is this self of all other selves? Probably all men would describe it in much the same way up to a certain point. They would call it the *active* element in all consciousness; saying that whatever qualities a man's feelings may possess, or whatever content his thought may include, there is a spiritual something in him which seems to *go out* to meet these qualities and contents, whilst they seem to *come in* to be received by it. It is what welcomes or rejects. It presides over the perception of sensations, and by giving or withholding its assent it influences the movements

they tend to arouse. It is the home of interest,—not the pleasant or the painful, not even pleasure or pain, as such, but that within us to which the pleasure and pain, the pleasant and the painful, speak. It is the source of effort and attention, and the place from which appears to emanate the fiats of the will.

And James adds a characteristic remark, which affirms what I have said, in the words "some of the elements which enter into the total complex which *is* the mind are marked by a greater intimacy than others":

> One may, I think, without fear of being upset by any future Galton circulars, believe that all men must single out from the rest of what they call themselves some central principle of which each would recognize the foregoing to be a fairly general description,—accurate enough, at any rate, to denote what is meant, and keep it unconfused with other things.[8]

I think it very likely that James is right in asserting thus that the most intimate mental constituent is the "active element in all consciousness" or what I have called awareness, but among mental processes, of which we have distinguished three types: cognition, feeling, and conation, the feeling processes appear to have the greatest intimacy. Next come the conative processes, while merely cognitive processes are "cooler," less fervidly claimed by the individual whose processes they are. But whatever the relative order of these processes, in regard to intimacy, it seems clear that some constituents of the mind *are* appropriated by the individual to a greater degree than are others. If there is some "central principle," such as the "active principle in all aware-

[8] *Principles of Psychology,* I, 298.

ness," then we may say that such a principle is most firmly *attached* to the mind, thereby referring to its supreme degree of intimacy. Other mental constituents will be less firmly, but still very intimately, attached. Attachment, then, is a characteristic of mind.

Now it must be noted that attachment is not limited to strictly mental constituents. That is to say that the mind attaches itself to, or appropriates, entities which are not themselves strictly speaking mental. There is the case of sense data. Here, to be sure, it is not clear whether sense data are mental or not. Berkeley and his followers maintain that they are. Realists like many followers of Moore will claim that they are not. As for Moore himself, he will say that there is no conclusive reason for believing either that sense data are mental or that they are not. Clearly then the case of sense data is a borderlying one. On the one side are entities which are not mental, such as the body and physical objects of every sort. On the other side are the recognized mental constituents, which are attached to the mind by the peculiar quality of being themselves mental. But as to sense data themselves, it is certainly true that the mind regards those sense data which it perceives as in some fashion its own. They are *its* sense data and no other mind can claim just these. But attachment does not restrict itself to mental entities or even to those which it often regards as mental, such as sense data. Minds become attached to non-mental objects in a similar way. The case of this, par excellence, is the case of the body, but the same tendency to regard non-mental objects as parts of the self is exhibited in relation to objects which are spatially separated from the body, and organically independent of it. The objects so appropriated form what James called the "material self." Our clothes, our

houses, and other possessions are among the objects which form the material self, and the fact that they are peculiarly attached to the individual is demonstrated by what takes place when these things are lost:

> The parts of our wealth most intimately ours [, says James,] are those which are saturated with our labor. There are few men who would not feel personally annihilated if a life-long construction of their hands or brains —say an entomological collection or an extensive work in manuscript—were suddenly swept away. The miser feels similarly toward his gold, and although it is true that a part of our depression at the loss of possessions is due to our feeling that we must now go without certain goods that we expected the possessions to bring in their train, yet in every case there remains, over and above this, a sense of the shrinkage of our personality, a partial conversion of ourselves to nothingness, which is the psychological phenomenon by itself.[9]

James also puts under the head of the "material self" our immediate family:

> Our father and mother, our wife and babes, are bone of our bone and flesh of our flesh. When they die, a part of our very selves is gone. If they do anything wrong, it is our shame. If they are insulted, our anger flashes forth as readily as if we stood in their place.[10]

Whether or not it is proper to speak of these possessions as material, it is clear that they are attached to us in the same manner in which physical objects are. Similarly, our friends are attached to us, and, in lesser degree, all members of our "set," or our university, or club, or of

[9] *Principles of Psychology,* I, 293.
[10] *Ibid.,* p. 293.

our nation. Likewise those ideal entities which Royce called "causes" become attached to us in such a way that it is not false to say that our selves are bounded only by the limits of the causes with which we "identify" ourselves.

7. *Detachment.* The opposite of attachment is detachment, and the latter is also an important characteristic of mind. Any group of elements in consciousness which is "threaded" by a pattern may be called a *noetic system.* Thus a tune as heard is a noetic system, but an equally proper case would be a purpose, including the consciousness of the ends and objects which it seeks as its fulfilment, together with its impelling desire. Now the mind is able to entertain not only one but several of these noetic systems. By detachment is meant the capacity of the mind to entertain two (or more) noetic systems, in such a way that (a) the mind is more intimately attached to one than it is to the other, and (b) the systems are relatively independent of each other.

What is here referred to as detachment will be recognized as an important and fundamental capacity of mind. Individuals are known to differ greatly in their powers of detachment, and the power is one which varies considerably from one time to another in the same individual. The general tendency of age is to facilitate this power. In youth the mind impetuously identifies itself with every cause; later the merits of various causes are acknowledged, yet the mind fails to yield them allegiance. The failure to answer the call of a cause may be due to the fact that the mind has permanently identified itself with certain interests which are seen to conflict with the aims of the present cause, or it may mean that there is some other cause, also entertained by the mind

in the same detached manner, which has aims that point in different directions from those of the present cause, and the mind cannot decide which of the aims to prefer. But whatever the reason for the failure, it illustrates the detachment of which the mind is capable.

Some degree of detachment is, however, in the possession of everyone, and is possessed early in life. A very good case of detachment is seen in the playfulness which not only human adults, but children and, it would seem, many animals, show. Play demands a sufficient absorption in the objects at issue to insure an impelling interest in those objects, but the absorption must never go beyond a certain point. The player must entertain a degree of detachment from the game throughout, else it ceases to be a sport and becomes a serious business.

Detachment is essential to humor. The fat boy may be laughed at by others, but he is not funny to himself, unless he is able to see himself in the detached way in which others see him. The humorous situation requires a contrast between certain of its elements. That is to say, there must be at least two noetic systems in the mind, which are contrasted in a way which is laughable. The slim man finds the fat man funny because, compared to himself, the fat man is ridiculously large, or perhaps the contrast is between the size of the fat man and the more normal human contour. In any event, the one who laughs must be detached from at least one of the noetic systems which enter into the contrast. He may be detached from both. In that case, the noetic system with which he is intimately associated is the total situation which embraces both the other systems but is relatively independent of each of them individually.

Detachment makes possible self-consciousness, and hence self-criticism. Among the noetic systems which the

mind entertains, some are characterized by a greater intimacy than others, but while this is true, there seems to be no unyielding restriction on the mind's power of detachment, corresponding to this varying intimacy. For not only is the mind able to regard in a relatively detached manner noetic systems whose intimacy is not striking, such as tunes to which one is listening, or the antics of comedians on the stage, but all minds to some extent, and some minds to a very great extent, can view the most intimate systems with detachment. We have said that feelings appear to stand at the extreme of mental processes in respect to intimacy. Yet even in the case of feelings, it is possible for the mind to view them objectively. Without denying, or being any the less conscious that it is I who suffer pain, I may treat the pain as if it were something other than myself. I may study its characteristics, and report them to a physician for his edification. Under the stress of circumstances this power of detachment often is strikingly exhibited, as when the martyr is able to suffer extreme torture without renouncing his faith. The martyr would still say "It is I who suffer the pain," though the pain and all the suggestions for conduct that it prompts are detached from the system of thought and action which the martyr makes his own. The case well illustrates what I have called the elasticity of mind, by virtue of which the martyr is able to say that he both suffers the pain and remains true to his faith, as well as the detachment, by virtue of which the two noetic systems are able to follow their respective courses independently.

By self-consciousness I mean simply this power of the mind to view even its most intimate processes in an objective fashion. In many cases this will be difficult to do, and it often seems impossible. Nevertheless, the exercise

of this power is a normal characteristic of minds. It is of great importance for morality. It enables the individual to see himself more or less clearly in his relations to his fellows and to the rest of the universe, and to estimate his own relative importance. Hence it makes possible self-criticism, and prepares the way for self-improvement, in so far as that is possible.

8. *Coactivity.* A further characteristic of the mind is its coactivity. By this term is meant the power of a mind to be dominated by a single idea or noetic system, in such a way that the detailed activity of the mind is directed or controlled by this idea. The term "coactivity" is taken from Sturt, who says:

> Noesis has a third quality [besides being synoptic and schematic] for which, there being no term available, I am forced to use a new term, "coactive"; by this I mean that, having invented or apprehended the essential formula, the agent's mind is able to collect and marshal the details for its realization. This is apparent in the musical example, where the composer assembles the notes he wants, rejects one and introduces another for the better rendering of his idea.[11]

The characteristic may be illustrated by simple and homely examples as well as by the grander cases drawn from the realm of artistic creation. If I am asked to go through a paragraph of print, drawing a line through every word of more than four letters but less than seven letters, I am able to perform this operation successfully by virtue of the power of coactivity which my mind possesses. The formula given to me by the request can be

[11] *Principles of Understanding,* p. 58.

held by the mind in such a way that it furnishes a guide for the acts which are then performed.

In this case the idea which dominates the mind and guides its acts is one which is impressed upon it from without and to which it is likely that the mind itself is relatively indifferent. It is perhaps more normal for the dominating idea or noetic system to be more securely grounded in the nature of the mind. In such a case it contains as a nucleus an intimate interest or desire. Even in the cases where the dominating idea is apparently one to which the mind is indifferent, the indifference is only relative, some connection between act and impulse there must be. But the connection is normally well recognized. A dominating noetic system of this kind is called a purpose. Not every dominating idea is a purpose, but every dominating idea is connected with some impulse in such a way that the whole—impulse and idea—form a purpose. Purposes vary in intricacy and in fixity, but they are all coactive in the sense that they act as formulae, explicit or vague, for the determination of the detailed action of the mind.

Scientific inquiry illustrates the coactivity of the mind. It starts with a practical or a theoretical problem. The mind seeks an answer to the question, gathering data and framing experiments on lines suggested by the question. The answer is not given by the question, but the question determines the direction which the inquiry takes, the kind of data which will be examined, and the nature of the experiments which will be relevant. Then as soon as an inkling of the answer is raised by the research, a formulation is given to it and further researches follow. The original formulation is often corrected, but at each stage it forms the guide for the ensuing researches, until it is superseded by a new one.

The coactivity of the mind is, however, most clearly shown in its artistic enterprises, for in them the medium in which the dominating idea is expressed is itself determined by the dominating idea. Thus the poet chooses the verse form which suits his thought: the lyrical form for passion, the sonnet for reflection; or he creates a verse form better qualified to carry the burden of his thought. Again, though some conception of the whole poem is doubtless possessed by the poet when he begins to write, the writing takes a more or less extended time. Yet the initial intuition of the poet holds good throughout the writing and determines the successive parts, even the choice of words. In the purest cases, this determination of the form as well as the content of the aesthetic product by a dominating idea gives the result an architectonic structure which is traceable in the minutest fragment. The temporal process is not essential. The whole poem might spring to life in one intense synoptic vision, as we may suppose the musical composition did in the case of Mozart. But the structure of the aesthetic product will bear witness to the fact that a dominating idea gives direction and pattern to the whole and determines its parts.

9. *Valuation.* The last characteristic of the mind which we shall mention is its power of valuation. The mind has the power of making judgments of various types: empirical judgments of the form, "This visual sense datum appears to be red," of the form, "This physical object is a book," and of the form, "All good things must have an end"; and *a priori* judgments of the form, "Two and two are four." All judgments are reflective: they are formulations of the reality with which the mind comes in contact. The judgment "This is a red patch"

is psychologically distinct from the perception of the red patch, and it is more complicated. The judgment involves the singling out of some "subject" and the attaching of predicates. But further, judgments involve what I have called valuation. Besides the formulation of reality in the judgment, there is also a valuation set upon the formulation: a valuation in respect to truth. The judgment is an assertion: it asserts that such and such a formulation or "proposition" is true.

The valuation of propositions in respect to truth is, then, a fundamental characteristic of mind. It is really a unique and unanalyzable function, but it seems to involve at least the consciousness, the elasticity, and the detachment which we have attributed to mind. The mind must be aware of the proposition, it must grasp its several elements, and it must refer the proposition containing them to a fact to which it claims to correspond. The detachment involved in making a judgment may be very slight, or it may be great, but the judgment seems always to require an objectification of the facts in regard to which it is made, and this involves a certain detachment on the part of the mind which makes the judgment.

It would appear therefore that valuations in respect to truth are essentially mental, and this seems even more clearly to be the case with other forms of valuation of which the mind is capable. Though all judgments involve a valuation in respect to truth, many involve further valuations. Of these, aesthetic and moral valuations are the most important. We shall consider aesthetic valuation here.

The aesthetic judgment involves, as I have said, a valuation in respect to truth. By this I mean simply that the aesthetic judgment like any other asserts a proposi-

tion, that is, affirms that there is a fact to which the judgment claims to correspond. If I say "the Venus of Milo is beautiful," everyone will, I suppose, agree. All agree that the proposition "the Venus of Milo is beautiful" is true, and what is meant by this agreement is that there is a fact which is correctly formulated in the proposition mentioned. As to the nature of this fact, there will be wide differences of opinion, yet it seems clear that besides the valuation in respect to truth, with regard to which the aesthetic judgment is like any other, further powers of valuation are called into play if the *fact* is to be appreciated.

Theorists differ in emphasizing the objective or the subjective constituents of the fact, but I think that in the aesthetic judgment the fact which is asserted contains both constituents. Certainly something is asserted about the object, though this something is not easy to identify. To attempt to discover anything approaching an adequate analysis of beauty is not in our present intention, but certainly one essential constituent of beauty is harmony, with its quantitative application, proportion. This may be the essence of beauty, but on the face of it, such characteristics as strength, delicacy, boldness, unexpectedness, suspense, complication, simplicity, and so on, appear to be important constituents of beauty. Yet it may be held that all these qualities serve only to give opportunity for exquisite harmonies, and that it is rather by virtue of the accomplished harmonies than by virtue of the other qualities displayed by an object that we call it beautiful. At any rate, harmony, I venture to say, is always a constituent of the beautiful fact.

This being the case, the nature of harmony calls for consideration. Here again we can expect no complete

analysis, but some of the essential characteristics are not difficult to name. In the first place, harmony is never logically simple. A single shade of color has no harmony, though it may give decided pleasure, when it comes as a relief to dulness. It is only when two shades of color are seen together that the question of harmony enters in. This is, of course, true not only of colors, but of musical tones and other sounds, such as words, of lines, masses, textures, and so on, wherever harmony is concerned, either by its presence or by its absence.

But while the logical complexity of the fact of beauty may be regarded as an objective constituent of the fact, that is to say, a characteristic of the object itself, harmony involves subjective constituents. For when two colors are said to harmonize, or two others are said to clash, it is between the colors *as perceived* that the harmony or clash occurs. Wave motions connected with purple do not physically clash with those connected with red, nor do the sense data which are purple clash with the sense data which are red. It is the perception of purple which cannot rest comfortably in the mind along with the perception of red, when only these two colors are perceived.

It may be more exact to state this fact by saying that when two so-called antagonistic colors are perceived together the effect upon the perceiving mind is not pleasing. Now the same thing may be said of all harmonies, whether of color, shape, size, or sound, and therefore we may conclude that an aesthetic judgment involves an assertion not only about objects but about the mind which makes the judgment. It involves an assertion about the *feelings* attending upon perceptions. Thus an aesthetic judgment is mental, not only in the same respects in which every judgment of truth is mental, but

in the added respect that it is always concerned with the feelings of the mind which makes the judgment.

The Mind and the Self. We have now given a rough characterization of mind, by no means exhaustive but suggesting its nature by calling attention to a number of widely different properties and functions which it possesses. We have said that a mind is intimately associated throughout at least a part of its history with a physical organism, that it is characterized by consciousness, by the possession of various types of mental process, including feeling, and by powers of elasticity, detachment, attachment, coactivity, and valuation. These characteristics are, however, compatible with different ways of regarding the mind as a whole. We must now consider briefly three conceptions of the *self*, and to ask what the relation is between these conceptions and that of the individual mind.

The first of these conceptions has to do with what may be called the empirical self. This literally is a history, commencing at the date of first consciousness and continuing, though not without intermissions, to the date of last consciousness preceding death. Or of any living individual, this self is the history up to the present. It is composed of a jerky series of continuous stretches of consciousness, the several stretches being separated by stretches of unconsciousness, such as those occupied by sleep, fainting spells, and the like, but the gaps are bridged by memory, so that the whole history presents a degree of unity, in spite of its temporal breaks. Disregarding these gaps, the history may be considered as a chain of events. Each event, besides having duration, will be characterized by being conscious, and in a more determinate way by being a feeling, a

cognition, or a judgment. By an event is here meant any portion of the empirical history of the self which it is convenient to take. Every event will have some duration, and a complete description of any event will be one which gives an account of everything mental of which the mind is conscious, however dimly, during the stretch of the event. But any part of this complete event, such as for instance the judgment I am now making, may be conveniently regarded as an event, provided it has duration, even though it does not include everything of which the mind is conscious during the stretch of time occupied by it.

Now though the continuity of the empirical self depends upon the memory, the actual history of the self, and hence the empirical self, *is* what it is, quite independent of the freaks and failures of memory. If at a certain early date in my history I whole-heartedly believe that the Earl of Chatham was an exceedingly upright man, the fact that I now remember to have had doubts about his character makes no difference to the event containing my earlier thought, though of course it is an interesting fact about my mental history.

The second conception, however, has to do with a self which is very greatly subject to alteration due to defects of memory. We may call this the conceptual self. This is what the individual thinks himself to be. The core of the conceptual self is one's consciousness of the present and his memory of his past history. This core of the conceptual self may correspond very closely to the individual's past history, but it is rather an abridged version of the past history, and on account of memory defects, it may discord with the history to a considerable degree. However, besides this core, the conceptual self includes in a more or less systematic fashion everything

which the individual regards as in any way possessed by himself, and it will include his purposes and the causes to which he allies himself. It is variable. We have already said that it is subject to freaks and failures of memory. It is also subject to conscious revision of opinion and purpose. And especially it may be noted that it varies from time to time in its boundaries, as a result of contact with the world, and in particular with one's fellow beings.

The third conception has to do with what may be called the substantial self. This conception views the self as a causally effective substance, not as the empirical history described under the first conception but as the maker of that history. This self is a continuant, in the sense that it endures throughout the period of time allotted to it. It does not necessarily endure unchanged, however; quite possibly it has a development. In any case it has a history, since it endures through time, and this history, of the substantial self, whether it includes change or not, is partially recorded in the empirical history. But the two histories are not identical. This is shown by the fact that the substantial self *may* endure unchanged throughout its history, while the empirical self is in constant flux and variation. It is also shown by the fact that the substantial self may, and probably does, have an existence partly outside the conscious arena. Apart from this, the history of the substantial self might be simply a part of the history which *is* the empirical self. But it can only be a part, since much of the empirical self consists of the effects of which the substantial self is the cause. Thus in the case of a perception, which is an event in the empirical self, this must be regarded as the effect of a twofold cause, i.e., an external stimulus acting upon the substantial self.

The conception of mind does not coincide with any one of these conceptions of the self. In a sense it is a composite of all three. From different points of view each one of these conceptions of the self has its importance. It is clear that the substantial self is logically the self *par excellence*, the self in itself, without intermixture of what is other than self. But from another point of view, the substantial self is much less interesting than the empirical self, for it is in conscious activity that the life of the self is lived. It is this conscious life which is *valuable* in itself. And it is to this life of the substantial self, in so far as this is consciously lived through, that the term "mind" most appropriately applies. Yet it is essential to the normal human self-consciousness to enjoy a conceptual self, appropriating to itself a body, material possessions, associates, and causes.

A mind, then, is a substantial self, in so far as it lives through a conscious history, normally with a conception of itself as having a body, purposes, and objective causes with which it is intimately allied.

CHAPTER III

THE ARGUMENT FROM ANALOGY

Hath not a Jew eyes? Hath not a Jew hands, organs, dimensions, senses, affections, passions? fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer, as a Christian is? If you prick us, do we not bleed? if you tickle us, do we not laugh? if you poison us, do we not die? and if you wrong us, shall we not revenge? If we are like you in the rest, we will resemble you in that.
THE MERCHANT OF VENICE.

THE problem of proving so fundamental a belief as that other minds than the one immediately perceived really exist has sometimes been said to be not worth discussing because in fact no one entertains the slightest doubt but that other minds than his own do exist. The problem therefore exists as a problem for no one. Thus Lutoslawski says: "Wherever universal convictions are found by the philosopher, they deserve his attention. I cannot prove the existence of other persons, but a proof is superfluous, as everybody believes it."[1] But the same objection might be given to raising the question of whether or not physical objects exist, since no one does in fact have any doubt on this point either. Yet the problem of the existence of physical objects is

[1] *The World of Souls*, p. 75. So also W. K. Clifford says:
"The existence of my conception of you in my consciousness carries with it a belief in the existence of you outside of my consciousness, a belief which can never be expressed in terms of the future sequence of my feelings. How this inference is justified, how consciousness can testify to the existence of anything outside of itself, I do not pretend to say: I need not notice a knot which the world has cut for me long ago. It may very well be that I myself am the only existence, but it is simply ridiculous to suppose that anyone else is."

one of the most interesting and fundamental in all philosophy. It is a problem whose solution at the hands of various philosophers has led to widely varying metaphysical results. Thus, while "common sense" may be willing to cut the knots it is unable to untie, anyone who desires to understand what common sense only takes for granted will have sufficient interest to inquire into problems which for ordinary human purposes may well be passed over. Philosophy proposes a criticism of all human beliefs with a view to correcting errors which common sense passes over and to discovering what the bases are for true beliefs which justify men in calling them not only beliefs but knowledge. Obviously, philosophy has a much more strenuous ideal of what shall pass for knowledge than has common sense, and it follows that philosophy will find many problems on its hands which common sense fails to recognize. The failure of common sense to feel the problems of philosophy is therefore no indication that these problems are false, and the discussion of them valueless.

The difficulty involved in proving that other minds than one's own exist was not appreciated even by philosophers until sometime after Berkeley put forward his criticism of the concept of matter. It is true that doubt as to any and all existences was entertained by skeptics from time to time, and that thinkers such as Descartes, in theoretically sweeping away all traditional beliefs, did throw into question the existence of mind among other things. Descartes did indeed treat our problem briefly and offered a solution which will be referred to later on, but the question of how the existence of minds not known immediately is to be proved was not given serious consideration until after Berkeley. It was J. S.

Mill who first gave extended consideration to this question.

Berkeley's criticism of the concept of matter led to Hume's skepticism not only as regards physical objects, but as regards the claim that the soul is immediately known. And if I as an individual soul am unable to verify my belief in my own existence by immediate experience of myself, and if also I am unable to establish the existence of an objective order, the possibility of proving the existence of other selves seems very remote.

Hume's skepticism made it necessary for philosophy to grapple in earnest with the problem of establishing the existence of the physical order and the problem of proving the existence of the self. The first attempts to solve these problems were based on an acceptance of Berkeleyan and Humean criticisms. Both Kant and Mill accepted the doctrine of Berkeley that the materials out of which reality is made up are perceptions and not things independent of mind. Both also accepted Hume's conclusion that the soul in which common sense believed could not be discovered by an analysis of experience into the simple elements of which it was composed.

With the solutions which Kant offered to these problems I am not at the moment concerned, for the special difficulty of proving the existence of other minds than one's own did not gain Kant's attention. The problem did occur to Mill, and his solution of the problem of matter and of the self is therefore relevant. Matter for Mill was the "permanent possibility of sensation," while the distinctive and essential mark of mind was "consciousness." Wherever there was sensation or the

permanent possibility of it, there was matter, and wherever there was consciousness, there was mind.

With this simple metaphysics, Mill deals with the problem of how the existence of other minds is to be proved. The result is the well-known argument from analogy, which is now usually referred to as the traditional proof of the existence of other minds.[2] As Mill

[2] J. S. Mill, *Examination of Sir William Hamilton's Philosophy*, chap. xii. Mill's statement is important, and is here quoted at length:

"By what evidence do I know, or by what considerations am I led to believe, that there exist other sentient creatures; that the walking and speaking figures which I see and hear have sensations and thoughts, or, in other words, possess Minds? The most strenuous Intuitionist does not include this among the things which are known by direct intuition. I conclude it from certain things, which my experience of my own states of feeling proves to me to be the marks of it. These marks are of two kinds, antecedent and subsequent; the previous conditions requisite for feeling, and the effects or consequences of it. I conclude that other human beings have feelings like me, because, first, they have bodies like me, which I know, in my own case, to be the antecedent condition of feelings; and because, secondly, they exhibit the acts, and other outward signs, which in my own case I know by experience to be caused by feelings. I am conscious in myself of a series of facts connected by a uniform sequence, of which the beginning is modification of my body, the middle is feelings, the end is outward demeanor. In the case of other human beings I have the evidence of my senses for the first and last links of the series, but not for the intermediate link. I find, however, that the sequence between the first and last is as regular and constant in those other cases as it is in mine. In my own case I know that the first link produces the last through the intermediate link, and could not produce it without. Experience, therefore, obliges me to conclude that there must be an intermediate link; which must be either the same in others as in myself, or a different one. I must either believe them to be alive, or to be automatons; and by believing them to be alive, that is, by supposing the link to be of the same nature as in the case of which I have experience, and which is in all respects similar, I bring other human beings, as phenomena, under the same generalizations which I know by experience to be the true theory of my own existence. And in doing so I conform to the legitimate rules of experimental inquiry. The process is exactly parallel to that by which Newton proved that the force which keeps the planets in their orbits is identical with that

put the argument, three sorts of facts were involved, and the argument was supposed to be valid because the inquirer was able to see the connections between the three groups of facts. He was able to experience all three groups in his own case, and though one of the groups was always absent when other individuals were considered, this absent group was supposed actually to exist, because in his own case the interdependence of the three groups could be established. The group of facts present in the special case of the inquirer but absent in the case of the other individuals was, of course, the facts of consciousness, of which states of feeling were taken by Mill as typical, because feelings were regarded by him as belonging to the self in a peculiarly intimate way. The aim of the proof was to establish the fact that the group of entities of which states of feeling are typical exists in certain cases when the inquirer does not have them present to him.

The two remaining groups of facts constituted the evidence on the basis of which the existence of the first group in the indicated cases was to be proved. On the one hand were the facts of bodily structure, which Mill called the antecedent conditions of having feelings, and on the other hand were the facts of overt activity, the consequences caused by states of feeling. According to Mill, the inquirer knew in his own case that his body was an antecedent condition of his having feeling and he

by which an apple falls to the ground. It was not incumbent upon Newton to prove the impossibility of its being any other force; he was thought to have made out his point when he had simply shown that no other force need be supposed. We know the existence of other beings by generalization from the knowledge of our own; the generalization merely postulates that what experience shows to be the mark of the existence of something within the sphere of our consciousness, may be concluded to be the mark of the same thing beyond that sphere."

also knew that the outward activities which followed his having feeling were caused by his feeling. He knew, in other words, that the series of events of which the members were bodily modifications, states of feeling, and bodily activities, in the order named, was a causal series, at least in his own case. When the case of other individuals was considered, all that was directly known to the inquirer was the group of bodily modifications and the group of bodily activities, but because these two groups were similar to the corresponding groups in the case of the inquirer, he argued that the analogy, so far demonstrable, was actually complete, and that states of feeling did always occur as a link between the two groups of facts which could be observed.

This has the appearance of a convincing argument, but there are difficulties involved in it which must be brought out, and if possible eliminated. It seems pretty obvious that Mill has overstated the facts of which the individual can claim knowledge, and that because of this overstatement the argument gains a spurious plausibility. We must now examine the criticisms of the argument from analogy, and consider how far they are valid.

1. The first point I would call attention to is that a part, and perhaps the most considerable part, of the cogency of this argument is due to the premise that the three groups of facts observed in the case of the inquirer are causally related. If the argument were simply that since *a*, *b*, and *c* are present in *this* case, and *a* and *c* are present in *that* case, therefore *b* is also present in that case, then it would be a much weaker argument. Yet it is in this latter form that the argument is often expressed. The weakness of this form of the argument should be

apparent: I have never seen a bobtailed cat, and I find it a little hard to believe that there are naturally bobtailed cats, but if the only reason I can give for doubting that there are animals so characterized is the fact that all the cats I have known have had, at least at the beginning of their careers, long tails, then I am scarcely justified in arguing that all cats have long tails. But if I knew in the case of the cats of my experience that unless they had had long tails they would not have had fur, whiskers, and a feline disposition, then I am on much surer ground if I deny the existence of tailless cats. Even with this knowledge, I may be mistaken in my denial, since tailless cats might have come by their markedly catty qualities in a different way from the way in which the cats of my experience have come by theirs, but at least I have grounds which give very high probability to my denial.

Of course, in the case of the cats I have no such knowledge. What the illustration is designed to show is that it is extremely pertinent to ask whether we have any corresponding knowledge in the case of human beings and minds, for it is really upon this premise that the cogency of the analogy depends. Suppose that consciousness, which we have affirmed to be an essential characteristic of mind, bore the same relation to a human being that a tail bears to a cat.

To be more specific, the point is that we do not know the three groups of facts to stand in the relation in which Mill supposed them to stand. In fact, there is good authority for believing that, in some instances at least, their relations are quite different in respect to the very point which is crucial for Mill's argument. It may well be asked how we know that our feelings are necessarily conditioned by our bodies. What we certainly do

know is that states of feeling in all the cases which we have observed do follow upon bodily modifications, we do know that in cases where we feel a numbing pain in the foot we can discover either by observation or by inference that some heavy body has come into contact with our foot in such a way as to produce important physical changes there. *Post hoc ergo propter hoc*, we argue that the states of feeling are caused by the bodily modifications. I do not say that such sequences are not good ground on which to base a belief, but can we be said to *know* that the earlier event is the cause of the later?

The doubt I here raise is not precisely that raised by Hume in regard to all causation. When I see a white billiard ball roll across a table and appear to strike a red ball, after which the white ball loses momentum and stops, while the red ball continues with a velocity and direction nearly equal to that previously exhibited by the white ball, then I see two events of the same order, differing principally in respect to time and space relations. No new simple qualities are present in the second event which are not present in the first. There is nothing in the events themselves which would lead me to doubt that I am here witnessing a case of causation, though, to be sure, if you press me, I cannot name any feature of the situation which shows it to be such. It may very well be that in *this* situation no such feature is present. But the case of the billiard balls is scarcely typical of the cases upon which our belief in causation is based. It has been suggested that when we see a mass of potter's clay take shape and texture under the manipulations of the potter's hands, we then witness an instance of causation in which it is impossible not to believe. I am not prepared to doubt that we do here perceive causation. I shall not attempt to name the

feature of this situation which convinces me that it is a case of causation, but I believe that the feature is present. The same feature may not be present in the case of the billiard balls, yet nothing *is* present there, as I have said, which leads me to doubt that it too is a case of causation, though much simplified. But the fact is quite otherwise with the case of states of feeling following upon bodily modifications.

States of feeling are qualitatively different from bodily modifications, and therefore I think there is reason in the events themselves to doubt whether the earlier is the cause of the later. I will grant that we are justified in assigning to bodily modifications some causal efficacy. Given the bodily modification, it may be inferred that *some* effect will result, but it is clear that effects quite other than the states of feeling do result, and quite a sufficient amount of them to make it plausible to suppose that they are all the effects resulting from this cause.

But further, I will grant that the fact that states of feeling do follow in the observed cases upon bodily modifications is ground for believing that there is some causal connection between them. But the most that can be inferred is that the earlier event is a condition, a normal condition, of the later. We are obviously not justified in supposing that the bodily modifications are adequate to cause states of feeling. One other essential condition of having states of feeling is that there should be a capacity for consciousness as one of the characteristics of the substance whose bodily modifications we observe, and we are as far from knowing of the existence of this capacity as we are from knowing of the existence of consciousness itself. And since we are so much in the dark as to what are the causes of states of

feeling, I do not think it can be confidently asserted that we know "the previous conditions requisite for feeling." At most, we know only some of the normal conditions under which feelings occur. We only know that when we perceive certain bodily modifications we may suppose states of feeling to follow, *provided that* we are perceiving a being which has the capacity for consciousness.

It is true that Mill did not argue from bodily modifications, alone, to the existence of consciousness in the form of feeling, but he did say he knew in his own case of a causal relation between the two, of which it is possible to doubt that he really did know. We have seen just how much that causal relation does prove, supposing it actually to exist. But the point which is crucial for Mill's argument is whether he is justified in claiming knowledge of the relation between the states of feeling and the bodily activities which he regards as their *consequences*. If it could be shown that these bodily activities are not actually the consequences of the states of feeling at all, then his arguments are weak in a critical point. If all that can be shown is that it is doubtful if the states of feeling are causes of the bodily activities, then it is doubtful whether Mill's argument is valid.

Psychological investigation and theory have in fact raised just this doubt. It will shorten our task to let A represent the bodily modifications of Mill's argument, B the states of feeling, and C the bodily activities which he regarded as consequences of the states of feeling. And it will also be of assistance to discuss the concrete case suggested by Moore in his discussion of this question: the case of a man catching hold of his foot when he has a feeling of pain there.[3] Here B is the specific pain lo-

[3] G. E. Moore, *Philosophical Studies*, p. 80.

cated by the percipient in a specific region, while C is the act of catching hold of the foot. Though only these two factors enter into Moore's discussion, we may supply the third factor by supposing that A includes the part of the body involved in the situation, namely, the foot itself, and also the external evidence of injury, as for instance the banging of the foot against a cobblestone.

Mill's argument is based on his belief that A is the cause of B and that B is the cause of C. Let it be granted that A is the cause of B. Now is it not quite possible that A is also the cause of C, not through B but, as it were, directly? This is the hypothesis which has been seriously proposed by psychologists and which many facts tend to confirm. According to this hypothesis it is nearer the truth to say that we are afraid because we run than that we run because we are afraid. But I need not go so far as this. It seems fairly certain that our running and our fear are caused by some third thing or complex of things. If our fear is facilitated by our running, it is because running is a bad response to make under the circumstances, rather than that running is in itself a cause for fear. Similarly, both our pain and our defensive act of nursing our foot are believed to be independently caused by a third element, which we have represented by A.

It is not necessary to accept this hypothesis, although it is one which appears to be gaining a very sure foothold in psychological thinking. But it is clear that if we knew that B was the cause of C, as Mill said he knew this, the hypothesis would have been disposed of at once.

2. Against the criticism that an argument from analogy could never be a good argument, Mill was led to point

out that even the law of universal gravitation depends on nothing better than an analogy. Newton observed an analogy between the fall of the apple and the motions of the planets in their orbits. If the fall of the apple was to be ascribed to a force called gravity, then the motions of the planets were, by analogy, to be ascribed to the same force. It was simpler to ascribe both motions to the same force than to suppose a different force in each case. Now if the present argument made use of analogy in precisely the same way as the argument for universal gravity, it would be a very convincing argument. Some force was required to explain both the fall of the apple and the motions of the planets, and when it was found that, masses and distances considered, the forces were quantitatively similar, it was an economy of thought, as Mill says, to suppose that it was a similar force in both cases. But on the hypothesis that consciousness is epiphenomenal, it does not appear to be necessary to suppose a link such as consciousness, in order to explain the behavior of a human being. Hence, though when directly experienced its existence must be recognized, it is a generosity rather than an economy of thought to ascribe it to other human beings. That is to say, the one argument which Mill offers in defense of analogy does not apply to the case which inspired his defense.

As to this comparison with the argument for universal gravity, it may also be said that the law of universal gravity can be stated without bringing in the notion of force, stating merely the quantitative measures actually observed. It is possible to hold that this is the only legitimate way of stating such a law. This is only carrying the principle of economy a step farther, not

using concepts which are by nature hypothetical in constructing scientific generalizations.

These two criticisms of the argument from analogy may be summed up as follows. Professor Montague has said that an argument from analogy is a good argument, provided the analogy is a good one. This is true, and the wit of saying it in just this way lies in the fact that there is no way of telling whether an analogy really is a good one until it is possible to test it at every point. When this is possible there is no need to argue from analogy. It may be said that an argument from analogy is a good one, however, if the two following conditions are fulfilled. If it is argued that two cases are similar in every respect, when some of the facts in both cases and all of the facts in one case are known, it is essential, first, that the facts which are known in both cases should be perfectly analogous, that is, should correspond in every respect, and, second, that in the case in which all the facts are known, the facts known *only* in that case should be implied by the facts of that case which are of the sort known in both cases. It may be granted that the argument of Mill satisfies sufficiently the first of these conditions, but it fails to satisfy the second, because we do not know with certainty that states of feeling, even in our own case, are implied either by bodily modifications or by bodily activities.

3. We turn now to a quite different criticism of Mill's argument, on the ground of the metaphysics upon which he attempts to base his argument. The difficulty has been described at length by Fullerton,[4] and Moore devotes attention to it. These critics do not attack the validity of the argument itself, but rather the basis

[4] G. S. Fullerton, *A System of Metaphysics.*

which Mill has for drawing any conclusions about existence whatsoever, beyond what is immediately perceived. For as I have indicated, Mill accepted Berkeley's doctrine that we can know only perceptions and systems constructed out of our perceptions. But if this is the case, we cannot know physical objects themselves, but only our perceptions of them, and it is urged that we are on very shaky ground if we attempt to argue from the existence of physical bodies and their activities, which by hypothesis we do not know, to the existence of minds connected with these bodies.

But is this really a valid objection? Moore, for instance, says:

> No observations of my own perceptions, feelings, or thoughts can give me the slightest reason for supposing a connection between any of them and any feeling, perception, or thought in another person. . . . But how different is the case, if we adopt the hypothesis which I wish to recommend. . . . On this hypothesis, that which I perceive, when I perceive a movement of my own body, is *real;* that which I perceive when I perceive a movement of another's body is *real* also. I can now observe not merely the relation between my perception of a movement of my own body and my own feelings, but also a relation between a real movement of my body and my feelings. And there is no reason why I should not be justified in inferring that another person's feelings stand in the same relation to the real movements of his body in which I observe my own feelings to stand to similar real movements of mine.[5]

The term "real" as used here is question begging. If it is true that the entities asserted in the premises of Mill's argument are not real, then it would be mere non-

[5] Objects of Perception, *Philosophical Studies,* pp. 82–83.

sense to base an argument about other real entities upon such premises. But surely, even on the basis of Mill's conception of physical objects, the entities called physical are held to be no less real than they are held to be on Moore's hypothesis, though they are indeed defined in terms of perceptions. I do not see that the question of the analysis of the term "physical object" is relevant to the problem under discussion.

If the aim of Moore was to discredit the premises of Mill's argument, he has supplied his own refutation, for in another place he accepts the principle that his knowledge of certain propositions about physical objects is based, in the last resort, on experiences of his own,

> consisting [, he says,] in the direct apprehension of sensibles and in the perception of relations between directly apprehended sensibles. It is *based* on these, in at least this sense, that I should never have known any of these propositions if I had never directly apprehended any sensibles nor perceived any relations between them.[6]

It is clear that the ultimate premises used by both Mill and Moore are the same, and I think it is also clear that for both, physical objects, however analyzed, are real. But what Moore doubtless means to assert is that physical objects must first be proved to exist *independent* of their being perceived, before it is possible to use propositions involving their existence as premises for the argument about the existence of other real entities. If this is true, then we are indeed involved in difficulties of a sort unforeseen by Mill, which render the proof of the existence of other minds an apparently impossible task. For, at best, Moore only offers a hypothesis and not a proof that physical objects are "real," that is,

[6] Status of Sense Data, *ibid.*, p. 188.

independent of a perceiving mind, and the hypothesis is such that it seems impossible either to prove or to disprove it. The only solution of this difficulty is to point out that it does not exist. There is no necessity for proving that physical objects exist independent of the mind which apprehends them.[7] What it is necessary to prove is that the objects involved in the premises of the argument from analogy really do exist, and here the problem is indeed a real one, but a different one and not incapable of being solved.

4. What are the grounds for regarding physical objects, including human bodies, as real, in the sense that they exist? Now it is a familiar idealistic argument that the reality of physical objects consists in their being social objects, that it is because two or rather all members of society perceive the same object in the same place that the object is known to exist and not to be a mirage of either. This amounts to an independent and very fundamental criticism of the argument from analogy. It is certainly true that one of the reasons given for the existence of physical objects is that other minds have perceptions which confirm one's own, and in so far as the belief in the existence of physical objects depends on this one reason, it would be arguing in a circle to use the existence of physical objects as a ground for believing in the existence of other minds. It is worth pointing out that this reason for the belief in the existence of physical objects can have independent validity only if there are other grounds for believing in the existence of other minds than those given in the argument from analogy.

But it seems clear that there are reasons for believing

[7] The difficulty would be a real one if we were interested in inferring the independence of other minds, but that is not our problem.

in the existence of physical objects independent of the confirmation of one's own perceptions by those of other minds. One such reason is the fact that one's own past perceptions are confirmed by the present and continue to be confirmed under various changes in the conditions controlled by the perceiver. There are other such reasons, and it must therefore be concluded that this criticism of the argument from analogy is not sound.

5. The last criticism of the argument from analogy which we shall examine is that the argument is not true to the facts of psychology. This criticism has been made a great deal of by many writers, including Royce and C. D. Burns. In brief, the criticism is to the effect that the argument assumes, first, that the child does not know of the existence of other minds than his own until he is able to frame arguments of the character of the argument from analogy, and, second, that the child's knowledge of himself and of the physical world precedes his knowledge of other minds; but neither of these assumptions is justified.

In regard to this criticism, it is necessary to point out again that the problem of how the individual comes to believe in the existence of other minds is distinct from the problem of proving with logical cogency that other minds do exist. Strictly speaking, arguments drawn from child psychology are relevant only as they throw light on the logical grounds which the individual has for his belief.

Arguments from child psychology have, of course, the intrinsic defect that it is exceedingly difficult to be sure what the child actually does know. They are as likely to be dangerous to the one who uses them as to those against whom they are used. So here, the criticism

assumes that the child *knows* that other minds exist, while certainly the most that can be shown is that he *acts as if* he knew this. Even this much it is not easy to establish, for it seems impossible to prove more than that the child learns to take account of the objects of his environment which we call human beings. He learns to distinguish them from other objects because of their strikingly different behavior. At what stage the belief that these human objects are conscious enters in is not easy to determine. It is not clear that this is before the child is able to frame the argument from analogy.

Another psychological objection to the argument from analogy is that the child enjoys his own mental processes in conjunction with the bodies of other persons before he becomes aware of his own body. This view is supported by the most casual study of the early days of infancy, where the infant discovers his toes and then other parts of his body much later than he exhibits an interest in his mother. But this criticism does no more than point out a circumstance of the discovery of other minds. From it we must conclude that the knowledge of one's own mind and the knowledge of other minds begin at different ends. The individual in his knowledge of himself proceeds from "enjoyment" of his mental processes to awareness of his association with the body which he "contemplates," while in the case of his knowledge of other persons the process is the reverse: he contemplates the bodies of others first and only later arrives at the notion that these bodies have enjoyment. At least this is a perfectly possible account of what takes place. There seems no reason for doubting that the notion that other bodies have enjoyment may be arrived at when the individual becomes convinced of the analogy between his body and these others.

Again, it is urged that the differences between the perceptions of one's own body and those of other bodies are so great that the traditional view makes too great a demand upon the analytical powers of the relatively naïve persons who "know" other minds. Burns observes that without the aid of mirrors the individual never sees his face or the back of his head, while these are accessible to his vision in the case of other persons. To be sure, the individual is able to touch these parts of his body, but the fact remains that there is a group of perceptions lacking in his own case which is present in the case of others. This is an important difficulty, because it is in the facial expressions that clues as to the most inward experiences are perhaps to be discovered. But do not sufficient data for comparison still remain? Burns points out a still further difference between the perceptions of one's own body and those of the bodies of other persons: in the case of touch there is a peculiar "double" sensation in the case of one's own body, that is, if an individual touches the palm of one hand with the fingers of the other he receives a sensation in both palm and fingers, but this double sensation is lacking in the case of other bodies. This, of course, is obvious, and thus Burns says, "Indeed, my perception of my body is altogether complex, subtle, intimate, and most strikingly different from my sensation of other bodies."[8] Well, this must be allowed. It emphasizes the fact that if bodily evidence is to be used to prove the existence of other minds, not all the characteristics of the bodies concerned can serve as evidence of this, but only some of them. But whether this means that "the traditional view implies too complicated and continuous an analysis of sense data" is a matter of opinion. A very complicated

[8] *Contact between Minds,* p. 50.

and continuous analysis of sense data is required of an individual in the process of becoming adapted to his physical environment and to society and its conventions. It is required from the first hour of infancy. Compared with the difficulty of some of the problems the individual has to solve in his early years, the problem of distinguishing the similarity between his own and other human bodies is perhaps a simple one. It must be admitted, however, that these psychological difficulties render the argument from analogy much less plausible than it appears to be on first sight. Moreover, the psychological problem of how other minds are discovered is interesting and important in itself, and we shall hardly be content to leave it unsolved, even if an argument having logical validity, but untrue psychologically, exists.

What, then, is the status of the argument from analogy? It is clear that there are difficulties involved in it, but some of the criticisms which have been urged against it do not really apply, and none of them conclusively refutes it. Our conclusion is that a reconstruction of the argument is necessary if it is to be regarded as satisfactory. Whether it can ever be regarded as a conclusive argument is open to question. But certain difficulties can be avoided and a much stronger argument can be made, while still following the same general lines.

We shall suggest two lines along which the rehabilitation of the argument may be achieved, and the two following chapters will be devoted to examining these suggestions in detail. On the one hand, a change in the form of the argument would appear to be helpful, bringing it into closer agreement with the psychological process by which other minds are discovered. This, I think, requires the insertion of an additional step in the

argument. On the other hand, the form of the argument may be left as it is, but to avoid the difficulties which have been pointed out, a search will have to be made for *specific criteria*, public in the sense that more than one observer can be acquainted with them, which point to the existence of consciousness other than that of the observer. This second suggestion will be examined in the next chapter.

As to the change in the form of the argument, it would, I say, appear that an additional step, a premise really assumed in the argument as usually stated, should be supplied. Taken all together the evidence employed by the argument from analogy is really evidence for a much more general proposition than "that bodies other than our own are accompanied by consciousness or states of feeling." The latter proposition is a deduction from the more general, and it may be said that the more general proposition is the one in which we have the greatest interest. The rendering explicit of this general proposition is difficult. We shall attempt only to approximate to it. The proposition we shall state will be less general than the one desired, but it is one which is general enough for our purposes. On the other hand, it will be too blunt: it will assert more than the argument requires, and a process of refinement is called for.

With these preliminary observations, the proposition may be stated, and it appears that it is a very simple, but withal a highly significant, one, namely, "that I am a member of a class called human of which there are other members," where "I" denotes the individual who judges the truth of the proposition. The proposition is too "blunt" because the adjective "human" connotes too much; it is not general enough because "human" denotes too little. The proposition which is really desired

can at present only be indicated by substituting "the class *x*" for "the class called human," but such a substitution is not very illuminating.

The proposition appears less forbidding if for the "class called human" is substituted the "human family." Logically this is just as useful, for all the members of the human family are members of the class called human. The difference between the two expressions is that the human family is a group of particular existents: it is limited by the denotation of the term human, while the class is a logical notion limited only by connotation. There is a class of mermaids, though the class has, presumably, no members; but there is, in this case, no family of mermaids, for a family requires the existence of at least two particulars. The proposition we are considering is less forbidding when the expression "human family" is used instead of the "class called human," because, though not everyone has reflected that there is a logical class of human beings, of which he is a member, everyone is aware of being one among other actual human beings.

It may be helpful to distinguish between a wider and a narrower sense of "human family": *the* human family is that group composed of *all* the members of the logical class called human, but *a* human family is any group of these members, whether two or more in number. Now, the individual is conscious of being a member of *a* human family, and it is this knowledge, if it may be called such, which serves as the premise from which he may argue that other minds than his own exist.

This change in the form of the argument may at first sight appear to be reversing the proper order, since it appears as if the reason for regarding oneself as a member of a family is that there are other minds than one's

own in existence. In the second chapter following, an attempt will be made to make the new order appear plausible, but here we may say that in reconstructing the form of the argument the aim is to follow the natural psychological order while at the same time seeking a logical argument. Psychologically, it seems clear that the child finds himself to be a member of a family long before he distinguishes between mind and body.

CHAPTER IV

SPECIFIC CRITERIA

Your body is the language of your soul,
Its speech, its music, the way your soul has of speaking to mine. . . .

JAMES OPPENHEIM.

As the result of the criticisms brought against the argument from analogy, we have concluded that if the argument is to be preserved in its traditional form, it is necessary to discover among the "public" acts of human beings specific criteria which may be regarded as evidence that these beings, in other than one's own case, are animated by minds. We have seen that the causal relation between consciousness, especially states of feeling, and overt activities is not open to direct observation. The connection often seems to exist, for the act appears to follow the state of feeling, just as the state of feeling appears to follow the observable stimulus. But we have observed that there is good evidence in support of the theory that the state of feeling actually follows in time the overt movement, and, if this is true, it is impossible to hold that the former causes the latter. When the foot is struck against a stone, it is jerked away and we are nursing it before we realize that we are hurt. Before we realize it, yes, it may be so, but is it before the pain actually begins? That cannot be decided, but what can be shown is that this jerking away and this protective action of nursing the injured foot constitute the sort of reaction which may take place, presumably, without consciousness. For the dog whose spinal cord has been severed from the upper brain will

exhibit the same reflexes when tickled or struck on the foot as the normal dog. It is true that the observable facts do not prove that consciousness is *not* an essential link in the causal series of which bodily stimulations and overt movements are the observable members. It might be true that the unfortunate dog just mentioned does suffer pain, even though his higher nervous centers are not affected. The principle that consciousness only occurs in connection with activity in the cerebrum is a dogma of which there is no real proof. But clearly, the facts show that we do not know that consciousness *is* an essential link in the causal series from stimulus to response. While it is fairly certain that there is a causal connection between the injured foot and the feeling of pain, it is possible to doubt whether there is any causal connection between the state of feeling and the reaction which the body makes as a response to the injury.

Thus, reliance upon a direct observation of a causal connection between "public" activities of human beings and consciousness appears to be impossible, and one important part of the traditional argument seems to lapse. However, it is possible that a careful search will still reveal among the overt acts and the appearances of human beings specific criteria which may be regarded as evidence that other minds than one's own exist. The causal connection between the minds and the overt acts cannot, perhaps, be observed directly, but may it not be justifiable, and even necessary, to assume the existence of other minds because, in certain cases, the bodily activities are what they are?

The possibility of this leads us to make an analytical survey of the specific activities of human beings. Here we are interested only in those physical activities which "point to" the existence of minds, not in physical activi-

ties as a whole. The situation chosen by Moore is a very aptly selected case of a specific activity which appears to point to the existence of a state of feeling other than that of the observer. We can hardly observe a man jumping around on one foot while he nurses the other in his hands without supposing him in pain, especially if at the same time he utters certain distressful noises and distorts his face in a manner expressive of agony. The phrases just employed of course beg the question, and we must ask what it is that makes such a display so convincing as an evidence of mind. We have seen that we may be misled if it is the defensive acts which the individual is making: the withdrawing of the foot and the attempt to protect it with the hands. These are reflex activities which there is no good reason to suppose to be preceded by a conscious state. What appears to convince us, however, that here is a mind in pain is not the efficient movements which the body makes to protect itself from further injury, but rather the ineffective activities displayed.

The very ineffectiveness of these activities is a reason for thinking that the individual in question is suffering pain. To explain actions having so little tendency to get rid of the offending stimulus, it seems necessary to bring in some factors other than those immediately observable. The analogy with our own experience helps us here. We know that when we feel a pain of this sort, we dance around as this individual is doing, yet it seems very natural for us to do so, since dancing around *does* relieve us of our pain, to some extent. If it does nothing else, it distracts our attention from the pain, and this is, subjectively, a great boon. Thus, it appears to us, the apparently ineffective activities which a human being, or any other, displays in the case of a bodily injury

have their explanation in their tendency to reduce the pain *felt* by the individual, though they have no tendency to remedy the bodily injury itself. Hence they point to the existence of feeling over and above the physical injury, and are in so far an evidence of mind.

It must be admitted, however, that there is nothing conclusive about this evidence. The dancing around, while ineffective and thus not explicable on the ground of simple reflex action, may be explained on the ground that it is "random activity" initiated by a situation for which the individual is provided, by instinct or by habit, with no specific response. Now, this is a type of objection which will be raised against any attempt to prove the existence of a conscious state on the basis of reactions of a physical organism. As long as it is possible to point with a show of plausibility to a physical device by which the same reaction might be produced, without calling in consciousness in any mode, so long will it be impossible to *prove* the existence of consciousness in this manner. Still, the plausibility of the physical explanation is a factor. A grotesque physical explanation, while logically valid as an alternative to the mental explanation, will not be preferred if the mental one is simpler. Explanation according to reflex action is so simple and plausible that it would be clumsy to suppose the intervention of a mental factor in a situation for which reflex action is quite able to account. Again, physical trial-and-error activity is a simpler explanation of behavior than consciously thought-out process would be, especially when the latter is unable to account for the discovery of a solving act, except in some such terms as inspiration or intuition, which explain nothing when so used. But it may well be that when *some* activities displayed by human beings are considered, the explanation

in terms of reflexes and physical trial and error alone either fails to account for the phenomena, or does do so in a way so grotesque that the mental explanation is simpler and will be preferred. We are now seeking an unambiguous case of this kind.

But is dancing around when in pain simply random activity? It appears rather to be at least roughly selected activity; that is, a more or less specific reaction following upon a specific stimulus. An analogous case is that when our finger is pinched, we shake our hand. Now we continue to shake our hand or to dance around, until the pain is relieved, or until something more useful occurs to us. Introspection, as I have said, gives us a clue to the utility of these apparently random movements, for they distract our attention from the pain, and thus make it easier to endure. If this explanation of such movements is the correct one, then here seems to be a clear evidence of mind, for if no pain is *felt*, of what value is the distraction?

Again it must be admitted that the evidence is not conclusive. Some purely physical explanation of the situation might be produced which would account for the behavior of the individual whom we think to be in pain. Yet now we are on the better side of the argument, for, until a purely physical explanation is offered, we are justified in giving weight to the *mental* explanation which our own experience affords. Again, even when a physical explanation is forthcoming, the question whether it is as simple as the mental one is apropos. And, finally, if a physical explanation is given, it will without question have to assign to the physical organism a characteristic which introspection has long since assigned to mind: we know by introspection in our own case that pain has the power to dominate the mind, holding our

attention to the exclusion of other things and making constructive thought difficult. We know that distracting movements, such as shaking the hand when the fingers are pinched, help to free us from this domination. We therefore assign to the mind a power of attention, and, further, an inability to attend effectively to more than one mental process at a time. Now, something closely analogous to this exclusiveness of attention must be assigned to the physical organism if an explanation in purely physical terms is offered. Thus, while consciousness has eluded our grasp, as far as a conclusive proof of its existence is concerned, we have shown that another being exists, possessing a characteristic which we know our minds to possess, and which we know to play an important part in the functioning of our minds.

However, we have not yet exhausted the evidence of the case we are considering. Besides the apparent ineffectiveness of the activities displayed by the individual who seizes his foot and dances around, other indications point to his being in pain, and these constitute perhaps the most important consideration which leads us to the latter conclusion. We say that the gestures, the cry which may have escaped him, and especially the contortions of his features, all are "expressive" of pain. We know the signs, and therefore we can infer the existence of pain; so our argument now runs. It might be put in the following, more general, form: certain gestures, sounds, and facial expressions are the "natural" expressions of specific mental events. Hence, whenever they are shown, the specific, correlated mental events are experienced by the individual who displays them.

This much can be regarded as certain: It is psychologically true that we read such signs, and, on the basis

of them, ascribe to the individual who exhibits them specific experiences. Thus Broad says:

> If I see a baby smiling or hear a dog snarling I ascribe a pleasant feeling to the baby and a feeling of anger to the dog, although they cannot describe their experiences to me by any conventional expression. On the other hand, babies and dogs often know when those around them are angry or pleased, although such creatures could not understand what we were saying if we tried to describe our mental states to them. I will call this way of arousing belief in the existence of a certain experience in a foreign mind "natural expression." The experiences which most obviously have characteristic natural expressions are certain emotions, such as anger, and pleasant or painful bodily feelings.[1]

Broad also lists a few other experiences which have characteristic natural expressions: an opposing volition is expressed by a hindering act, an according volition by a coöperating act; desiring a certain end and thinking out proper means to gain it, expressed by performing a chain of acts which seem well adapted to a certain end, avoiding obstacles or trying to modify them; "coherent and intelligent sentences are the natural expression of the kind of experience called judgment or supposition or questioning, no matter what they conventionally express."

The question which we must raise, however, is whether the existence of such natural expressions constitutes a good *logical* ground for inferring the existence of mental states. There appear to be four possible ways in which the existence of such expressions might be used to support the argument, though in each case the conclusion must be regarded as only probable. However, an

[1] C. D. Broad, *Mind and Its Place in Nature*, pp. 322–323.

argument based on probability would be very appropriate to our problem, for it is a problem which combines the difficulties of introspective analysis with those of knowledge of the external world, and knowledge of probabilities of varying degrees is all that can be hoped for in the latter field. The four possibilities are these: 1. The expressions might be regarded as intrinsically expressive of the mental states which are ascribed on the basis of them. Just as a poetically chosen word often expresses the desired experience by its intrinsic sound rather than simply by its conventional meaning, as "tinkling cymbal," so a facial expression, a smile, for example, may express amusement through some quality of its own quite apart from the associations which have gathered around it. 2. The expressions might be intrinsically indifferent, but expressive because associated in the past experience of the observer with the mental states. 3. The expressions, intrinsically indifferent, might be recognized *instinctively* as being signs of specific mental states. Broad puts it as follows:

> The visual appearance of certain bodily forms, movements, gestures, and modifications has for us an *unacquired* meaning; so that, from the first, we pass from perceiving such things to believing that the perceived body is animated by a mind, and that this mind is owning such and such an experience.[2]

4. It might be held that simultaneously with the perception of the expressions, the observer has direct acquaintance with the mental state of the individual observed.

Let us consider these four possibilities, with a view to discovering whether any one of them can furnish a valid argument such as we require. First, let us consider the

[2] *Ibid.,* chap. vii.

fourth possibility. It is one which has found favor with A. J. Balfour,[3] and, in a modified form, with Broad.[4] It is true that Broad does not rely on such direct knowledge of another's mental states to prove that other minds exist. Instead, he offers a somewhat elaborated form of the argument from analogy, based on the persuasion that we know, reasonably well, that our volitions cause the acts which they appear to cause. But if there were direct knowledge by one mind of another, argument on the basis of bodily analogies would appear to be unnecessary. The knowledge of other minds would then be a datum, just as knowledge of sense data is a datum requiring no proof. We must therefore examine the possibility of direct acquaintance with another mind, first as an independent means of knowing that other minds exist, and second, as explaining why in the presence of the expressions exhibited by another individual an observer ascribes to this individual specific mental states.

The evidence for telepathy gathered by the Society for Psychical Research,[5] in spite of certain imperfections, appears to prove that what takes place in one individual's mind can sometimes be reproduced in another individual's mind, in such a way as to make the theory of chance coincidences very doubtful, without the intervention of the known means of communication by way of the physical world. The experimental evidence is of especial importance, and, while not as perfect as could be desired, is very convincing. However, there are several difficulties in the way of using this evidence to prove that other minds exist. In the first place, telepa-

[3] *Theism and Thought,* p. 252.
[4] *Mind and Its Place in Nature,* chap. vii.
[5] Myers, Gurney, Podmore, *Phantasms of the Living.*

thy appears, on the evidence, to be only a rare and exceptional occurrence, requiring at least a percipient who possesses a curiously sensitive faculty. This is certainly true of the experimental evidence for telepathy, and it is worth noting that the ability of these gifted percipients is not a constant matter but varies greatly from time to time, usually disappearing altogether after a while. In the cases of spontaneous telepathy communication occurs only in times of exceptional stress, such as the death or great distress of one who is related by bonds of blood or sympathy. Hence, the evidence we have gives no ground for believing that telepathy is a factor in our ordinary knowledge of other minds. There is no evidence at all that it is as prevalent as the Balfour hypothesis requires.

Secondly, if telepathic transference of "thoughts" were common, as the hypothesis requires, it is still difficult to see how such transference could be a useful factor in our knowledge *that* other minds exist. At most, it would give us knowledge of *what* other minds are thinking. It must be remembered that all telepathic investigations proceed on the assumption that there are other minds than the percipient's in existence, and aim to discover simply whether or not there are ways of communication with them other than by the usual physical means. To be useful in proving that other minds exist, the evidence for telepathy would have to show not only that the percipient has experiences whose occurrence in his mind are causally connected with the processes of another individual, but also that the percipient is able to distinguish these experiences in his own mind and to know that they are not his own experiences but those of another mind. It does not appear that the percipient is able to do this, except on the basis of external evi-

dence. If the percipient did not already believe in the existence of other minds, his telepathic knowledge would not lead him to that belief.

The knowledge which telepathy affords is of two classes: first, there are cases where the percipient receives a sensation or idea or impulse which corresponds temporally and qualitatively with a sensation or idea or impulse which the agent mind is enjoying. Secondly, there are cases where the percipient mind receives sense data of the bodies of other persons, or of physical objects connected with these other persons at a time when these other persons are going through a crisis and, doubtless, have present to their minds these same or qualitatively similar sense data. But neither of these classes of cases meets the need of a basis for belief in the existence of other minds. In the second class, when a percipient has sense data of another person's body, even though the body be far away, he has not a knowledge of that other person's *mind* any more than he has of the mind of a person near at hand whose body he directly sees and touches. In the first class of cases, when a percipient simply has, for example, a perception of a distinctive taste, it may be true that another person has the same taste at the same time and that the latter taste is the cause of the former, but there is nothing about the taste itself or its perception which shows that it is caused by another's experience. The percipient is not directly acquainted with the other person's mind, but only with the taste which he himself is perceiving. That the other person is actually perceiving the same taste can be proved only indirectly.

What is required is that a percipient should be able to perceive directly and to *recognize* another mind in the act of perceiving certain sensations, or of feeling

certain emotions, or of willing certain acts, and of this there is no evidence whatsoever. We therefore conclude that there is no direct acquaintance with other minds sufficient to serve as independent evidence that such minds exist. We have now to consider our second question, whether direct acquaintance with other minds explains why, in the presence of certain gestures, noises, and facial expressions exhibited by another individual, an observer ascribes to this individual specific mental states.

The evidence for telepathy affords no positive ground for believing that direct acquaintance with other minds is a factor in the situations under discussion. For instance, the evidence for telepathy gives no reason to believe that when an individual utters a cry and scowls in a certain manner, and we say he is in pain, we as observers have a direct acquaintance with the pain which he feels. In most cases this can hardly be true, for as Royce accurately observes: "The sympathizer does not feel the sufferer's pain. What he feels is his own emotional reverberation at the sight of its symptoms. That is, in general, something very different, both in quality and in intensity, from what the injured man feels."[6] On the other hand, it is true that there is no evidence to disprove that, in some cases at least, such acquaintance does occur. The indication that telepathy is a rare occurrence fits in well enough with this hypothesis, because this direct acquaintance with another mind need occur only sufficiently so that the external signs exhibited by the other individual may become associated, in the observer's mind, with the specific mental state. Also, the fact that ordinarily a gifted percipient is necessary for

[6] *Problem of Christianity,* II, 20.

telepathic knowledge of another mind can, perhaps, be reconciled with the hypothesis, because it can be argued that the ordinary individual doubtless has sufficient telepathic powers to enable him to have direct acquaintance with another individual's mental states, provided he has the assistance of external hints in the form of the excited condition of the observed individual, and the like. It can be argued that a gifted percipient is required only when the distance is great and the person of the other individual is not observable to give supplementary data. Yet, giving the hypothesis every concession, it remains a hypothesis for which there is not the slightest positive evidence. It becomes a useful hypothesis only if other attempts to explain the facts prove fruitless.

We turn, therefore, to the alternative theories. The second and third hypotheses may be considered together. Do we *instinctively* ascribe specific mental states to an individual when he exhibits to us specific bodily expressions, or do we learn to do this, as the result of direct associations acquired in the course of our lives? Broad rejects the latter alternative, and concludes that either there is direct acquaintance with mental states other than one's own, or

> we must suppose that the innate constitution of human beings (and probably of other gregarious animals) is such that, when one sees any body which *in fact* resembles his own closely enough, he instinctively believes it to be animated with a mind like his own. And we must suppose that, whenever one sees in another a facial expression or hears a noise which *in fact* resembles closely enough the facial expression or noise which in him is the natural expression of a certain kind of experience, he instinctively ascribes a

similar experience to the mind which he believes to animate the body of the other.[7]

The hypothesis that the belief in other minds is to be explained on the basis of instinct has grave objections even when considered simply as a psychological description of how this belief arises. It assumes a much more elaborate and specialized instinctive equipment on the part of the mind than our present psychological studies appear to warrant. It assumes that each of the manifold varieties of natural expressions, such as the snarl of the dog and the cry of the baby, is an adequate stimulus capable of arousing an instinctive tendency to believe in the existence of other minds. Such an explanation in terms of a hypothetical instinct is, of course, possible, but it is purely imaginary and has no evidence to support it. Furthermore, it is hardly an explanation at all in anything more than name. To invoke the name of instinct is to confess that the real explanation of our belief in other minds lies hidden in the mysteries of a mental nature that baffles understanding. But even if this hypothetical instinct to believe in the existence of other minds were well established, it could not be taken as affording the logical proof desired, any more than our impulsive fear in the presence of the thunderclap can be taken as sufficient evidence that thunder is really terrible.

Psychologically considered, the explanation on the basis of acquired associations is sounder and far more illuminating. As we shall see, it does not itself afford the logical proof which we are seeking, but it brings us at least a step nearer that goal. As usually stated this explanation is open to serious objections, some of which,

[7] *Mind and Its Place in Nature,* p. 330.

however, can be met by a more careful formulation of the hypothesis. It is usually stated in terms similar to those which express the argument from analogy. Dr. Broad thus states it as follows:

> A direct association between a certain facial expression and a certain emotion could arise only in the following way. We should need to have often seen a certain expression (e.g., a frown) on our faces when we felt a certain emotion (e.g., anger). If this could happen often enough, the visual appearance of this facial change might be connected with this emotion. When we saw a similar expression on another face we might automatically believe in the existence of a similar emotion and might locate it in the mind which animates this other body.

The hypothesis thus stated is subject to criticism on various grounds, perhaps the most important of which are pointed out by Dr. Broad. In the first place, it is objected that the initial associations between expressions and emotions cannot be formed, because we cannot, as a matter of fact, observe our own facial and other expressions at the moment when we experience emotions. This must be admitted to be true in many cases where we do interpret expressions correctly. The second criticism is that even if such associations were formed, it does not follow that they would result in our interpreting expressions of other individuals as evidences of mental states on their part. What would be associated would be a type of facial expression with an emotional experience of our own, and it is by no means clear that the appearance of the expression on the face of another individual would do more than revive the emotional experience in our own minds. Thus, acquired association

alone cannot explain our attributing mental states to individuals whose bodily expressions we perceive.

The first of these criticisms does not, of course, apply to all cases of supposedly acquired associations between emotions and their natural expressions. The dog may hear his own snarl, though he cannot see the facial expression that goes with it. We cannot observe our own frowns, but the impatient tone of voice which goes with the frown and is also a natural expression of anger is observable to us. It might be held that a very large number of natural expressions can be observed by those whose emotions they express, and in regard to those which cannot be so observed, such as facial expressions, it might with some plausibility be held that these associations are formed in a secondary fashion through their appearance in other individuals along with the expressions whose emotional associations are directly acquired. But this defense of the hypothesis under consideration is, perhaps, strained. We *can*, no doubt, observe our impatient tone of voice when we are angry, but how many of us do? The signs of emotional activity which mean so much when we perceive them in others perhaps often occur in us in such a way that we could observe them if we gave them our attention, but for the most part they escape us, and it is only in moments of acute self-consciousness that we "see oursel's as ithers see us." And this is an objection which applies to all the more spontaneous expressions of emotional experience.

To meet this objection the hypothesis must be revised, and a way must be shown in which the associations are acquired more naturally. It is usually assumed that the associations are acquired in the first instance between our own expressions and our own emotional states. The

criticism just stated is fatal to this assumption, but suppose the initial associations are between our own emotional states and the expressions of other individuals, who are sharing our emotional experiences with us. Then the objection no longer applies. And this is a very natural and probable view of what takes place. Expressions of other individuals have emotional associations for us because we have frequently perceived these expressions at times when we were ourselves experiencing emotions. It is true that unless these other individuals were experiencing emotions similar to our own, the emotional associations of these expressions would not correspond to the emotions of which they are the natural expression. But the fact is that in a great many cases the emotions which we experience are shared by our fellows. There will, then, be many cases in which the emotional states associated with facial and other natural expressions in the manner suggested will correspond to the emotional states which are so expressed.

In this way the emotional associations of various natural expressions can be explained without bringing in instinct or telepathic communication. The weakness of the hypothesis so far lies in the fact that many of the emotional associations so acquired will not correspond to the actual emotional states being expressed. But in regard to this it is not improper to suggest that this is just what we do find. We often find ourselves in error in reading the expressions of other individuals and of animals, and if we examine such errors we find that the usual fallacy is that of attributing to them our own emotional states in cases where these are not really shared by the individuals in question. It is possible, then, to hold that the cases in which we are not in error in our interpretation of the so-called expressions are

due to associations acquired in situations in which the emotion expressed is shared in some degree by both individuals. The reliability of our interpretations of emotional signs will then depend directly upon the extent to which our associations between emotional states and natural expressions have been acquired in situations where there has been this common enjoyment of experience.

The above suggestion is sufficiently plausible, at least, to enable us to pass by the first criticism against the explanation of our knowledge of other minds on the basis of acquired associations. But the second criticism must now seem even more forceful, for if the suggested revision of the hypothesis is valid, then it is all the more difficult to see how acquired associations between emotional states and natural expressions can account for our attributing emotional states to other individuals. The emotions of which we have been speaking are always our own emotions in the first instance. How then do we come to assign internal states to others than ourselves? No mere combination of the associations just described will explain how this critical step is taken. If an explanation is possible it will be discovered only by a further analysis of the situations in which experiences are enjoyed in common with other individuals. It is just because this further analysis is seen to be necessary that the hypothesis of acquired associations gives promise of fruitfulness.

An analysis of social experiences involving emotional states and their natural expressions discloses two characteristics which throw light on this problem. The first of these is that the natural expressions which we have been discussing have a double meaning for the mind which perceives them. So far we have been conceiving

the perceiver as if he were passive in the social situations considered. The associations between emotional states and expressive signs have been regarded as forming mechanically, as if the individual were completely indifferent to the interpretation of the situation which results. But the individual is not indifferent when placed in a social situation. Each of these situations presents an individual problem of adjustment, and the success of the adjustment depends upon the accuracy with which the individual interprets the situation. Now, although facial and other expressions are perhaps properly regarded as the spontaneous expressions of subjective states of feeling, to the perceiving mind they have another and probably a prior significance, namely, that of clues to the behavior of those who exhibit them. A smiling countenance must early become associated with kindly action by the one who smiles, while the frown is in the same way associated with unpleasant consequences. Shaking the head, and other varieties of the no-sign are doubtless more or less spontaneous expressions of a conscious attitude of disapproval, but they must primarily appear to the observer as indications that his intended actions will meet obstruction by the one who exhibits the no-sign. Immediately this fact is perceived, it becomes a question of how much of our reading of expressive signs is done in terms of behavior meaning and how much in terms of mental states. It is very probable that a large part of what looks like appreciation of other minds by animals and young children is simply the interpretation of expressive signs in terms of associated sequences of behavior.

Expressive signs then have an important meaning as symbols of types of activity on the part of those who show them, as well as their meaning in terms of the

mental states which they express. But the matter is even more complicated than this, because the symbolism of the expressive signs soon extends beyond behavior sequences and attaches itself to impersonal objects and events until the whole apparatus of language results. Now as this symbolism develops, the original behavior meanings play a less and less important part because the explicit behavior formerly connected with the expressive signs has to a large extent changed to implicit behavior which is not observable by the perceiver of the expressions. Yet the need of interpreting the gestures and other expressions of an individual in a way which will continue to be helpful in meeting the situations in which this individual is concerned still remains. The tendency, therefore, will be for a set of meanings to develop in terms of hidden activities, leading to the idea of an inner nature of some sort in view of which the expressive signs and explicit behavior of the individual may be understood.

It has not yet been explained how this inner nature comes to be conceived in mental terms, but an advance has been made. It has been shown how the idea of some sort of inner nature may come to be attributed to other individuals simply through the natural process of adjusting to social situations. The explanation may be advanced still farther if we notice that there are *some* social situations in which it is most natural for each individual in the situation to regard the other's "inner nature" as like his own. Let us take a situation such as the following: A, a child, and B, its mother, are experiencing fear of a thunderstorm. The character of this situation is such as to induce A to regard B's attitude as similar to his own. For they are both reacting to the same object. The thunder holds their attention, and it

should be as clear to A that B is attending to the thunder as that he is doing so himself. At every crash, B starts, and her nervousness increases and then declines, corresponding to his own succession of experiences. The facial expressions of B clearly occur as a response to the stimulation of hearing the thunderclaps. And this is also clearly the case with A's experiences of fear.

Whether or not A does conclude that B is subject to fear as he is himself, will depend, I think, on how great is his desire to interpret B's facial expression. If he really is puzzled and seeks a solution of the difficulty, he certainly can be supposed to have intelligence enough to come to the true conclusion, for, after all, we are dealing with a human being who is not governed by rigid associative laws. Let us suppose, however, that his desire to interpret B's expression is not great, or that though his desire is great, the solution escapes him. He then will fail to ascribe the emotion of fear to B on this occasion. Let him later find himself in a situation, however, where he observes the same expressions on B or B′ or B″, but is not himself moved by any object to fear. Will not fear then suggest itself as the interpretation of B's expression on the basis of past associations? I think this very likely.

The foregoing attempt to explain psychologically how one individual may learn by experience to ascribe mental states to his fellows on the basis of facial expressions is not without its defects. The account is not complete,[8] but I think it is sufficient to justify the conclusion that it is not impossible for the individual to learn this habit by the aid of acquired associations, though the precise manner in which he learns it is not

[8] Some further analysis of the psychological conditions involved in ascribing feelings to other minds will be made in the final chapter.

entirely clear, and that it is not necessary to resort to the hypothesis of telepathy or instinct, which have nothing positive to recommend them. But now it is necessary to ask, as in the case of telepathy, of what value is this account as an argument to prove that other minds exist. We said in the case of telepathy that direct acquaintance with another mind was not helpful to our purpose unless it allowed the observer not only to know what another mind was thinking, but also to know *that* it was another mind which was thinking thus and so. And since telepathy does not appear to offer evidence of this kind, it was decided that whatever evidence there was for it was not evidence of the *existence* of other minds.

It seems clear that whether the tendency to ascribe mental states to other individuals on the basis of bodily expressions is due to instinctive or acquired associations, the tendency itself is no evidence that the ascription is justified. At most, it shows only that it is useful to ascribe mental states on this basis. But it would also be useful to do this, if as a matter of fact one's fellow beings were not conscious, *provided* their physical character were such as to make them react in similar situations in the same way as a conscious being would.

Three of the four possible ways in which bodily expressions might serve as evidence for the existence of other minds have now been considered, and have been found to give no sufficient *proof* of this conclusion. Only the fourth remains, "the expressions might be regarded as *intrinsically* expressive of the mental states which are ascribed on the basis of them." This, at first sight, appears to be the least likely of all the four possibilities, yet, I think, it is the only one which could have logical force as a support to the conclusion that other minds

exist. It is an argument from design, like Paley's use of the watch on a desert shore. It is to the effect that the expression has such an intrinsic character that one is irresistibly led to the conclusion that an intelligence has contributed to the effect, and that therefore other minds exist.

When one is in the presence of a sunny smile or a malignant frown, it is not easy to believe that there is nothing intrinsically humorous in the smile or angry in the frown. It is difficult *then* to believe that these come to mean what they do simply because of past associations, or perhaps through an instinctive or telepathic penetration to the mental states of the individual whose expressions they are. Perhaps it must be allowed that to *recognize* the meaning of facial expressions, of cries, and of gestures an observer must be possessed of instinctive or telepathic powers, or have experienced perceptions of them previously in association with experiences of his own. Even this may be questioned in many cases: the orator's powerful blow on the table expresses energetic effort if it expresses anything, and he who runs may read. Of course, the words "if it expresses anything" are significant, for a puffing locomotive engine is quite as emphatic; but, after all, banging on a table is not a very intelligent gesture, and all others may not be on a par with it.[9] But still it may be allowed that an observer must be endowed with certain natural gifts, or have acquired them through experience, before he is able to read the meaning of expressions, without denying that the meaning is written in the expressions for whoever has the power to read it.

[9] "Writhings of earthworm on fishhook express discomfort, if they express any consciousness at all, which may be doubted." W. E. Hocking, *Meaning of God in Human Experience*, p. 248.

There are phrases in use referring to bodily expressions which lend a certain color to the view just now being considered. One commonly speaks of so and so having, perhaps, a sensual mouth, or an intelligent eye, or a sensitive nostril, or giving vent to an expressive oath, or making an impatient gesture:

> Hark, the shrill outcries of the guilty wretches!
> Lively bright horror and amazing anguish
> Stare thro' their eyelids, while the living worm lies
> Gnawing within them.

The question is whether such phrases can be taken literally. There is more than a grain of truth in supposing that they can be. The portrait painter knows how to portray on a flat surface the inner character of his sitter. He exaggerates a little here and softens down a little there, to make the portrait more revealing than it naturally is of the soul of the subject, but this would be impossible to do with any success, if the actual appearance of the sitter were not to some degree expressive of his character. Not only the appearance but the apparel "oft proclaims the man"; and so we might go on, arriving at the conclusion that every man is his own portrait painter, and that his soul goes into the picture. How else account for the fact that the mere appearance of people often gives so good an insight into their character? With more or less success we all practice the art of physiognomy daily. And yet how unreliable are all our efforts to discover the revealing signs, and how greatly one man's reading of a countenance differs from that of another. The view has been put by Lutoslawski, who says:

> I do not say that the sum of organs, the skeleton covered by flesh and skin, is an appearance of the soul. But this

skeleton, in its outward outline, has besides its size and form an ever-changing expression which is produced by the voluntary movements and distinguishes a living body from a corpse. This expression, consisting of subtle changes of form, really belongs to the soul, and not to the body, and it is also the subject of works of art. If you then insist upon asking me what a soul is like, I may answer, "It is like the expression of the body, distinguished from its size and form." . . . According to the degree of power and activity of a soul, the body which is its instrument acquires more or less expression, and this makes the difference between inspired features and a dull face. If, for instance, somebody's eyes are expressive, they undergo constant changes in their appearance according to the thoughts and feelings of their owner, and this influence of his soul pervading his eyes and face makes a living impression which may be symbolized in a work of art, but never remains in a body after death. Besides the ever-changing expression which cannot be reproduced, there are also some permanent features in a face which enable the artist to produce a likeness of the soul which rules over it, as may be seen in the best statues of men.[10]

Something true is undoubtedly being said here, but whatever may be the importance and the accuracy of such portrayal of character by facial and other expressions, it is hard to see how these expressions can be regarded as intrinsically evidence of the existence of mental states. In some cases, they are taken rather as clues to the behavior of the individual whose expressions they are, not primarily as signs of his inner experience, and when this latter interpretation *is* put upon them, it is not clear that this would be done unless the observer

[10] *World of Souls*, p. 64.

already believed that he was dealing with a being capable of *some* sort of awareness. It is not clear that the facial expressions and gestures do anything more than give clues to *what* sort of awareness is being experienced, assuming that some sort is. Yet may not this insufficiency of the evidence be due to the fact that it has been too narrowly limited? Have we not selected the kind of expressions which are least likely to reveal inner experiences? I think that this is the case, and that better grounds for believing in the existence of other minds may be discovered if we examine expressions less fleeting, especially those which we have reason to think to be produced in a conscious endeavor to reveal in a material medium what is intrinsically mental.

In regard to this attempt to find an infallible criterion of the existence of other minds, Hocking asks:

> Are there not as Wundt suggests "manifestations of animal life which cannot be explained without the introduction of the mental factor"? Unfortunately there are none such; every physical change must and may be referred to a physical cause. There is no reason why "educability" itself may not be a property of matter. [Here Hocking adds in a note, "And herewith we exclude Binet, Bunge, Moebius, etc., as well as Schneider who appeals to 'irregular muscular action.'" He continues:] Are there not in certain groupings of actions unmistakable "signs of choice"; or as James better states it, can we not recognize "the pursuit of ends with the choice of means"? Certainly all such signs as this do guide our social judgments. Even more than by strict planfulness ("pursuit of means with choice of means") are we guided by a certain *playfulness* or superabundance in the apparent government of movements: signs of fluidity, eagerness, emotionality are

more immediately compelling than signs of intelligent end-seeking.[11]

And Broad says, in regard to coherent and intelligible sentences, which he has described as

the *natural* expression of the kind of experience called "judgment," or "supposition" or "questioning," no matter what they *conventionally* express. . . . For our present purpose, the natural and unintentional expression, which belongs to all intelligible sentences as such, is far more important than the conventional and deliberate expression, which belongs to a small minority of them. The hearing or reading of intelligent and intelligible discourse (whether we accept or reject what it asserts) is *the* occasion *par excellence* on which we feel perfectly certain of the presence of a foreign *mind* as distinct from the presence of mere *mental events*.[12]

Neither Broad nor Hocking, however, is disposed to regard such signs of mental activity as logical evidence that other minds exist. Their value lies in aiding us to know what sort of experiences are being enjoyed, if any. "It is always easier," says Hocking, "to determine what state of mind belongs with what set of actions than to determine whether there be any state of mind there or

[11] *Meaning of God in Human Experience*, p. 247.

[12] *Mind and Its Place in Nature*, chap. vii.

As long ago as Descartes it was held that intelligent discourse was the best evidence of the existence of other minds. Descartes writes: "We may easily conceive a machine to be so constructed that it emits vocables, and even that it emits some correspondent to the action upon it of external objects which cause a change in its organs; for example, if touched in a particular place it may demand what we wish to say to it; if in another it may cry out that it is hurt, and such like, but not that it should arrange them variously so as appositely to reply to what is said in its presence, as men of the lowest grade of intellect can do."

no."[13] As I have pointed out before, Broad relies on a modified form of the argument from analogy, using as one of his premises the proposition that certain internal changes in his own body are determined by his volitions. He therefore regards it as likely that "similar internal changes, which I assume on grounds of analogy to be taking place in the foreign body, are due to volitions." The weakness of this argument lies, I think, in the fact that there is nothing to distinguish an overt movement which is the result of volition from an overt movement which is not willed, when the "public" facts alone are considered. We know many of our acts to be involuntary, and how are we to show on physical grounds that our neighbor's act is willed, in any particular case? Broad's argument assumes that the causation of certain overt movements by volitions is sufficiently proved by the observed similarity between the intention, as that is introspectively known, and the resulting act. It is not necessary to dispute this here. The chief difficulty in this particular form of the argument lies in the impossibility of observing any physical characteristic of an overt movement which is willed which distinguishes it from one which is not.

Yet we have seen that overt movements do often have distinguishing characteristics of a physical kind. It is among such movements that we must look for a criterion of mind, whether the argument then proceeds by analogy or not. What we are seeking may be defined as follows: Let there be a type of overt movement, with a distinguishing public characteristic, such that to account for its existence the hypothesis of mental intervention is more plausible than the hypothesis of purely physical causation, then the existence of such a move-

[13] *Meaning of God in Human Experience,* p. 248.

ment is evidence giving high probability that a mind is associated with the body which makes the movement. Such an overt movement we should call a specific, though not an infallible, criterion of mind, and we have now to examine certain cases which have some claim to be regarded as such.

The most promising characteristics of mind for our purpose are those which, in the chapter on mental characteristics, were called noetic powers of mind. These were chosen for especial consideration in the earlier chapter because the possibility of proving their existence by means of physical criteria appeared greater than that of proving in a similar manner the existence of simple awareness or feeling. We have first to show that this proof is possible. If it can then be shown that these noetic powers involve awareness and feeling, the argument based on specific criteria must be regarded as extremely good. In what follows we shall separate these two steps in the argument, first asking whether noetic powers can be shown to be possessed by other beings, on the basis of physical criteria, and then taking up the more elusive question of whether awareness is necessarily involved in them.

We begin with coactivity. Among the activities of mind included under this head is what James calls "the pursuit of ends with a choice of means," what Hocking calls "planfulness," and what Broad calls "desiring a certain end and thinking out proper means to gain it." Planfulness is, however, a special form of coactivity, for by coactivity is meant simply "the power of the mind to be dominated by a single idea or noetic system, in such a way that the detailed activity of the mind is directed or controlled by this idea."[14] This more general char-

[14] See chap. ii, p. 39.

acteristic of mind can be proved to have application, using only the evidence of overt movements. For it is possible to offer a formula to a fellow being, and to observe that his behavior is determined by the formula. Thus I may ask any being whom I suspect of having a mind to cross out every fourth letter in a paragraph of print having words of unequal length, and observe that this request determines the activity of this being.

So simple a test only proves a very simple form of coactivity, but though the method of experiment is not adaptable to prove the more creative forms of coactivity, observation of the behavior of human beings leaves no question of the propriety of characterizing them as "coactive," often in very high degree. Especially, when a man announces his intention of doing a certain thing at a certain time, or lays out a program, such as a course of lectures, and then does the thing he said he was going to do, producing the lectures on the appropriate occasions, it is clear that such a man is coactive, in the sense that he has the capacity to be dominated by a formula which determines his acts. The capacity is perhaps never so convincingly shown as when we do not quite understand what it is that the individual is going to do. He tells us, but his formula is meaningless to us, a bare form of words. Then he carries out his intention, so that we come to understand what he meant, and often we remember the formula given at the outset and see that it did mean something after all. Mrs. Royce's description of Royce's method, that Royce first tells you what it is that he is going to say, next he tells you how he is going to say it, then he says it, and last he tells you what it is that he has said, is an illustration of coactivity in the sense here used, as apparent to the alien observer as it is to the individual himself. Though

exaggerated here, the method is very common in literature and other arts. One observes it in the artist who first sketches out his impression of his subject, then carries it on to further, more explicit, and more adequate detail. The musician often announces his theme, and then develops it in all its variations. The poet not uncommonly invokes the muse, and gives her a hint of the task for which he desires her aid, and then spins the web of his poetry in all its detail.

Not only is it possible to observe this coactivity when an especial announcement of the dominating idea is given, but in any coherent work of art or course of conduct it is apparent that the detail has been determined from first to last by a single idea. Often the meaning of the parts of the whole is not clear until the central idea has been grasped, but when one does see how all parts help to realize the idea as a coherent whole, then one is strongly persuaded that the idea stands to the detail in the relation of cause to effect.

It is certain therefore that coactivity is a characteristic which can be proved to have application, on the basis of overt movements alone. It can be asserted quite confidently, therefore, that there are beings other than oneself who possess this characteristic, for it can be easily pointed out that there are other beings who display the distinctive type of overt activity required.

In similar fashion other characteristic powers of mind can be proved to be possessed by beings other than oneself. Let us consider the case of judgment. As was previously noted, Broad has called attention to the fact that coherent and intelligible sentences are the natural expression of the "kind of experience called 'judgment' or 'supposition' or 'questioning,' no matter what they conventionally express." He remarks, "The hearing or

reading of intelligent and intelligible discourse (whether we accept or reject what it asserts) is *the* occasion *par excellence* on which we feel perfectly certain of the presence of a foreign *mind* as distinct from the presence of mere mental events." Why do we feel perfectly certain that the being who utters an intelligible sentence is animated by a mind? I do not think this assurance is due primarily to a belief, either instinctive or acquired by association, that intelligible discourse is the *natural* expression of a judgment, etc. I think it is due to the fact that the intelligible sentence has an intrinsic meaning which we are able to recognize as a judgment of a determinate kind.

When I say the sentence has an intrinsic meaning, I do not suppose for a moment that the words which make up the sentence and the grammatical arrangement in which they occur have any meaning except that acquired through usage, just as I do not suppose anyone to be capable of reading the meaning without a preliminary grammatical education. What I mean is that whatever the process may be by which the sentence comes to mean what it does, it actually does carry this meaning in its structure at the time when its meaning is appreciated. The intelligible sentence "This is a book." is a formulation of a fact; we recognize it as such, and because we do, we believe that the being who has uttered or written the sentence has judged the fact which is expressed by the formulation. The utterance of a formulation of a fact is evidence of the possession of a power of formulation by the being who is responsible for the utterance.

Thus, it is the meaning which the sentences *conventionally* express which assures us that they are the expression of a "kind of experience called judging." Indeed, it is only because of this meaning that we can

call a sentence "intelligent and intelligible." Now Broad speaks as though the truth or falsehood of the formulation expressed by the intelligible sentence were irrelevant to the question of proving the existence of other minds, or if not irrelevant, that the truth or falsehood of the assertion were not susceptible of proof. I think the question of the truth or falsehood of the formulation uttered by a fellow being is distinctly relevant to the question of whether or not we assign him a mind. I should say that the occasion on which a *true* formulation of a fact is uttered by a fellow being is one which gives greater certainty of that being's possession of a mind than one on which a formulation is uttered whose truth or falsehood is undetermined, for it is only by recognizing the correspondence of the formulation with the fact that we can have any kind of assurance that a judgment in regard to this fact is being made.

Hence, it is that element in the judgment which we have called valuation in respect to truth which, if it could be shown to be possessed by a fellow being, would convince us that he is actually making a judgment when he utters an intelligible sentence. Now, the truth or falsehood of an assertion is susceptible of proof in a great many cases, sufficient to show of any individual that he does possess the power of valuation in respect to truth, at least in a measure comparable to that in which the inquirer himself possesses it. If a list of a hundred statements about commonplace objects, half of the statements being false, the other half true, be submitted to an individual, with the request that he check the true statements, and the result is that a very high percentage of correct checks are placed, then it is highly probable that the individual possesses to some degree the power of valuation in respect to truth. This test is obviously

an artificial one, and proves only a limited power of valuation. In much the same manner, however, we can, and in fact do, become assured of the ability of our fellow beings to make judgments of far greater complexity and subtlety than this. We may say that the usual test of another being's ability in judging is to compare his assertions with what we ourselves already know, or with what we can discover for ourselves. And it is the truth of our fellow being's assertion, proved by independent examination of the facts, which convinces us most forcibly that he has, in any given case, actually passed a judgment upon these facts.

Now, if it is possible to assign to other human beings the power of valuation in respect to truth, on the basis of overt movements alone, it is likewise possible to prove in a similar way the possession of powers of aesthetic valuation. Admittedly, the possibility of testing for this characteristic is restricted by the very great divergence between the opinions of different people with regard to what is and what is not beautiful, but this difficulty is easily overemphasized. For, in the first place, the actual disagreement of people in regard to what is beautiful is much less pronounced than that in regard to the *analysis* of the beautiful thing; and in the second place, there are numbers of instances of beautiful objects about which everyone, or at least most people, are agreed. Especially is it true that when there exists a marked difference between objects in respect to beauty, their relative merits will be similarly judged by most people. While it may be difficult to find any agreement as to whether a Greek temple is more or less beautiful than a Gothic cathedral, it will be easy to find agreement in the judgment that each is more beautiful than a house in the slums. Thus, certain rough tests are

available which will show quite clearly whether or not a given individual has the power of valuation in respect to beauty. Here, as in the case of valuation in respect to truth, our assurance that a fellow being has a sense of beauty must be grounded in evidence that he can discriminate between the more and the less beautiful as we ourselves discriminate between them.

The method by which it is possible to discover on the basis of public evidence whether or not any individual, whether man or beast, possesses the noetic characteristic of coactivity and of valuation in respect to truth and beauty is applicable to the assignment of other characteristics of mind as we ourselves know these characteristics by introspection. The possession of a sense of humor may be proved by similar testing. Put down a series of humorous stories intermingled with stories without humorous point before a being whom it is desired to test, with the request to mark, say with a laugh, those which are humorous. A high percentage of correct marks would prove with high probability the possession of a sense of humor comparable to that of the one who composed the list. Thus our first task may be regarded as accomplished. We have shown the possibility of proving the possession of certain important noetic characteristics by means of specific public criteria. The second task was to show that the noetic characteristics thus proved involve awareness. This is the more difficult task.

The argument is that as we know the process of coactivity and the process of judgment at first hand they are conscious processes, and the consciousness appears to us to be a factor in the process. In the case of coactivity, we first consciously grasp the meaning of the formula, though our initial understanding of it is not always complete. Then we apply the formula to the

material, using the formula throughout as the guide and standard of our performance. We refer back to it from time to time for verification, and we know when we have finished that without the aid of the formula, the result would have been different from what it is. It is the conscious application of the formula and the continuous conscious reference to it throughout the course of the operation which makes it difficult to believe that the process could be formed equally well without the intervention of consciousness.

And yet something like this planfulness seems to be characteristic of all life, even where the existence of consciousness is doubtful, and even in the case of human beings, the planfulness or teleological adjustment of activities seems to be a much more deeply working principle than would be the case if consciousness as we know it were essential. Biological functions such as digestion and respiration go on in the human being without apparent control by the conscious will, and indeed persist even though the conscious will has lost its desire for life. Such considerations lead to the conclusion that the organic unity displayed by the living being is not dependent upon consciousness, though it is none the less probable that conscious selection is essential to many of the purposeful activities of human beings. It is difficult to hold, therefore, that mere planfulness implies consciousness, and hence that beings who show purposiveness in their explicit actions must possess consciousness.

In making this admission we are simply saying that our reasons for believing that planful activities mean the presence of consciousness are not so good as they should be if the argument in this form is to be regarded as logically sound. It is possible indeed that consciousness is necessarily involved in such activities, and I am

inclined to believe that it is so, especially in the less strictly automatic actions. We can hardly be said to *understand* a teleological scheme which is not of the type of conscious purpose. But here we must reject this criterion because it does not give us logical coerciveness, or even strong probability.

In the case of judgment, the implication of consciousness in the process appears clearer. As was previously stated in partial analysis of the process of valuation in respect to truth, such valuation involves grasping the several elements of the proposition along with their meaning when arranged thus in the propositional form, and it also involves referring the proposition to the fact to which it claims to correspond. Over and above this, it involves criticism of the proposition as a formulation of the fact. Now all this seems perfectly simple and free from mystery so long as we suppose the process to be conscious throughout. The *conscious* comparison of proposition with fact seems essential to the process of judgment in respect to truth.

In aesthetic judgments a further conscious element enters in—feeling. We observed in an earlier section that an essential element in beauty was harmony, and that harmony was a relation which applied only between perceptions, not between physical objects, or even sense data. To say that two colors or tones or lines, etc., harmonize is to say that when they are *perceived* together the effect is pleasing. The aesthetic judgment therefore appears to make an assertion with regard to feeling. But if it is questioned that the aesthetic judgment actually makes an *assertion* with regard to feeling, it seems evident at least that it *involves* feeling. For it is through feeling that the individual is able to discriminate between things which are ugly and things which are beauti-

ful. In either case, consciousness in the form of feeling appears to be essential to valuation in respect to beauty.

A survey of noetic activities has now been completed, together with an analysis of the grounds for believing that consciousness is implicated in them. Valuations are the clearest cases of such implication, and of valuations the aesthetic shows the implication most emphatically. A very simple example of aesthetic judgment has been chosen in order to avoid obscuring the logic of the argument, but the principle is the same, and of course much more impressive, when more elaborate examples are chosen of valuation in respect to beauty. But though more impressive, the more complicated instances are logically no more coercive since the essential elements are present in the simplest aesthetic judgments. More elaborate instances may be supplied by those who desire them. In the same way further illustrations of this form of argument could be offered besides the aesthetic judgment. Wherever a judgment is made in which feeling is involved, or any act is performed which clearly or most probably would not have occurred except for the presence of feeling, there is the same sort of evidence of other minds. Thus laughter in a humorous situation is indicative of mind, because it implies that the humor of the situation is seen and relished. Mere laughter does not mean mind. It is laughter which occurs in the presence of an observably comic object which irresistibly suggests the presence of mind. Such laughter, quite apart from its analogy with our own, shows a responsiveness to incongruous elements in the situation which require feeling, or, as we say, a sense of humor, for their appreciation. Any other sign would do as well, a groan for example. It is only indifference to emotional values which leaves the existence of mind in doubt.

The obvious criticism of the above argument based on specific criteria for noetic powers such as valuation with respect to truth, beauty, and humor is that it has not been proved that these activities cannot be carried on by a body without the presence of consciousness, either as a supervising agency or as feeling. It must be admitted that the physical organism itself *may* be able to do this. The body is a highly complex organization, and it is futile to attempt to say what it cannot do. But the argument as outlined above shows that no one of us is alone in being possessed of the characteristics of mind, with the possible exception of mere awareness. When it can be shown so convincingly that there are other beings besides ourselves who are responsive to distinctions between fact and fiction, beauty and ugliness, comedy and tragedy, cruelty and kindness, it may seem unessential and even idle to question whether in fact such responsiveness involves awareness in others as it does in ourselves. Practically, the existence or nonexistence of awareness on the part of such beings can make little difference in our actions, but, philosophically, the question is still acute, for philosophy is concerned with more than pragmatic distinctions. It is concerned with things as they are, and it will never be satisfied until it knows them as they are and knows that it knows them as they are. For this reason we have argued that the awareness is essential to the performance of noetic activities, and it is very highly probable that such is the case. The only alternative is a strict epiphenomenalism according to which awareness is a mere shadow or glow cast off by vital functions, including valuational activities, while they are in process. On this hypothesis awareness is no more essential to the activities of mind than the sparks cast off by locomotive wheels in rounding a curve. But

our position here is that such a view opposes a mere outline of a theory to a view which is not only concretely describable and intelligible but which is taken over directly from observable experience. Until the epiphenomenalist can show in an equally complete and reasonable way how noetic activities, involving as they do distinctions of value, can go on without awareness, the alternative view has both reason and experience on its side and will prevail.

Our conclusion is that the argument for other minds based on specific criteria must be regarded as having very high probability. As just indicated, it is not conclusive, but as we pointed out at the end of chapter i, an argument which can claim high probability must be regarded as a very strong argument. In dealing with empirical matters, to ask for a conclusive argument is a counsel of perfection. We are forced to be content with probabilities of varying degrees in all empirical considerations, and when the probabilities are very great, as in the present case, it is not good sense, and consequently not good philosophy, to remain in doubt.

CHAPTER V

RESPONSE

To anything that appears in our life with the character of a response, we instinctively attribute outer personality. Not thunder in general, but thunder at a critical moment in our thinking, means that Jove has spoken. HOCKING.

"A man lives by believing something, not by debating and arguing about many things," said Carlyle. The arguments for the existence of other minds given in the preceding chapters, like so many of the arguments for the existence of God, are likely to leave an impression of artificiality, hardly compatible with the naturalness and vitality of the beliefs they are said to justify. "Your arguments are highly ingenious," a critic may observe, "but who save a philosopher would have thought of them?" And one cannot but feel that there is something damning in the criticism. To be sure it may be answered with plausibility that no one save a philosopher takes the trouble to think things through, and that therefore it is not strange that the endeavor to find good reasons for the beliefs of common sense should lead the inquirer beyond the thinking of the man in the street. Yet the criticism has not lost its sharpness. The feeling persists that the knowledge of other minds is a popular possession, and that the task of the philosopher is not to discover *some* more or less valid reason for the common belief, but to bring to light *the* reasons why this belief is held by the plain man, and to show that these reasons are in fact good ones. For we cannot rid ourselves of the persuasion not only that the common-sense belief in the existence of other minds is a true

belief, but that the plain man really knows what he believes as well as any philosopher who ever drew a distinction.[1]

It is this persuasion which gives great interest to the psychological question of how we come to believe in the existence of other minds. It is safe to say that no argument will prove satisfactory unless it is at least supplemented by an explanation of how the unreflective man comes to his belief. And the most satisfactory argument would be one which could be shown to be essentially contained in the experiences of the most unphilosophical of minds. We do not say that the foregoing arguments are not thus implicit in the thinking of common sense, but in the form in which they approach nearest to conclusiveness, they appear to be farthest from common sense, and it would be a relief to find that there existed a different argument, more completely embedded in the mass of commonplace thinking and one, therefore, of which it might be hoped that the man in the street would say, if made acquainted with it, "Yes, I think that explains why *I* believe in the existence of other minds."

Now I suggest that, besides the overreflective character of the previous arguments, they fail to win this comment, or win only a reluctant expression of it, for another reason. I suggest that these arguments, in the eyes of common sense, are unsatisfying less because they are thought to be inadequate to prove what they aim to prove than because they aim to prove too little. The belief in the existence of other minds is one of the big beliefs of mankind: a vital belief and a rich belief; one might almost call it a religion in itself, were it not so universally acknowledged as a matter of fact. And the

[1] See G. E. Moore's statement in *British Contemporary Philosophers,* Vol. II.

arguments do not appeal because they appear to be too trivial to explain a belief of such proportions, of such richness and depth.

The alternative to a belief in other minds is so blasting. It might, on a superficial consideration, be thought that the suggestion that one is himself the only conscious being in the universe would be exhilarating. A very god would such a one be! But anyone with the slightest imagination is anything but exhilarated: quite the opposite. The misery of such an existence, even for a god, has been brilliantly set forth by Jean Paul Richter:

> The very worst of it is the lazy, aimless, aristocratic, insular life that a god must lead; he has no one to go with. If I am not to sit still for all time and eternity, if I let myself down as well as I can and make myself finite, that I may have something in the way of society, still I have, like petty princes, only my own creatures to echo my words. . . . Every being, even the highest Being, wishes to have something to love and to honor. But the Fichtean doctrine that I am my own body-maker leaves me with nothing whatever—with not so much as the beggar's dog or the prisoner's spider. . . . Truly I wish that there were men, and that I was one of them. . . . If there exists, as I very much fear, no one but myself, unlucky dog that I am, then there is no one at such a pass as I. The only enthusiasm left me is logical enthusiasm—all my metaphysics, chemistry, technology, nosology, botany, entomology, are summed up in the adage: Know Thyself. I am not merely, as Bellarmin says, my own Saviour, but also my own Devil, Executioner, and Master of the Knout. . . . Around me stretches humanity turned to stone. In the gloomy uninhabited void glows no love, no admiration, no prayer, no

hope, no aim. I am so wholly alone; nowhere a heart-beat, no life, nothing, about me; and without me nothing but nothing. . . . Who hears my wail, and knows me now? Ego. Who will hear it, and who will know me to all eternity? Ego.[2]

Against the prospect of humanity turned to stone, the previous arguments appear to be ineffectual barriers. We are apt to feel that unless our reasons for believing in the existence of other minds go deeper than those arguments our social world rests on a treacherous foundation indeed. The need of other minds is so deep-felt, that only an assurance equally profound can be regarded as completely satisfactory.

This need of other minds is given expression in Richter's words: "Truly I wish that there were men, and that I was one of them." And the only satisfactory answer to the question raised by doubt of the existence of other minds is: "There *are* men, and I am one of them." This, it will be remembered, was the proposition which, at the end of our criticism of the traditional argument from analogy, we said to be the really interesting proposition, and, moreover, the proposition from which the narrower one, "that other consciousness than one's own exists," could be drawn. It is the more general proposition which we must endeavor to prove. Our question is, How does the individual discover himself to be one among other individuals, all of whom have a similar nature? How does the individual discover his membership in the human family?

In seeking an answer to this question, we may make use of three notable contributions made by Royce,

[2] *Werke*, ed. Reimer (Berlin, 1827), Bd. XXX, ss. 65–68. Quoted by Fullerton.

though it seems clear that these suggestions of his do not carry us as far as it is necessary to go. The first of these suggestions is that knowledge of the self is arrived at by an "interpretation," and the second is that knowledge of one's own self is arrived at not sooner than knowledge of other selves.

In making the first suggestion, Royce says:

> Each one of us knows that he just now, at this instant, cannot find more than a mere fragment of himself present. The self comes down to us from its own past. It needs and is a history.[3] [And again:] At this present moment I am indeed here, as this creature of the moment—sundered from the other selves. But nevertheless, if considered simply in this passing moment of my life, I am hardly a self at all,—not a coherent personality. Yet memory links me with my own past,—and not in the same way to the past of anyone else. . . . In brief, my idea of myself is an interpretation of my past—linked also with an interpretation of my hopes and intentions as to my future.[4]

The self which is known by interpretation in the manner Royce suggests is that which we earlier called the "conceptual self." Of this it is certainly true that we come to know it only through a process of interpretation. This self is not given to us in any moment, but is discovered as it, at least partially, reveals itself in experience. The need of interpretation is especially clear in the case of the purposes, hopes, and expectations which form a part of the conceptual self, but it is also true in respect to the nucleus of mental processes and powers, which are only made explicit as the history of the self unfolds. But it is necessary to stress the point

[3] *Problem of Christianity,* II, 40.
[4] *Ibid.,* p. 41.

that the conceptual self which is known as the result of interpretation does have as its core the "empirical" self, which is a chain of mental events that together form the *history* of the self. And what distinguishes this core of the conceptual self is the fact that each event is consciously lived through, *erlebt*. In particular, at every stage in the development of the conceptual self there is a present awareness which is itself a part of this self. It is this which gives a unique character to the conceptual self and distinguishes it from any other conceptual system which the mind may entertain. In words previously explained, the conceptual self is intimately *attached*, with a greater degree of attachment than any other conceptual system. This fact must not be overlooked or minimized when it is asserted that knowledge of the self comes as the result of an interpretation. It is essential to be clear that the interpretation of the self is unique because of the nucleus of present awareness which must never be left out of the interpretation. It is this fact which decisively refutes such a statement as that of Stout: "If we disregard all qualifications of the self which presuppose social relations, it is not too much to say that all that constitutes a distinctively human self-consciousness disappears."[5]

Nevertheless, it must be allowed that the knowledge of one's own self as a "distinctively human self-consciousness" comes only as a result of an interpretation. In this sense, we adopt Royce's first suggestion. His second suggestion is to the effect that knowledge of other selves is likewise an interpretation, and that the two interpretations, of self and other, arise in the individual's consciousness together; not knowledge of the self first, and then, added to that, knowledge of other

[5] *Groundwork of Psychology*, p. 178.

selves, but knowledge of the self only through contact and contrast with other selves:

I am not first self-conscious and then secondarily conscious of my fellow. On the contrary, I am conscious of myself, on the whole, as in relation to some real or ideal fellow, and apart from my consciousness of my fellow, I have only secondary and derived states and habits of self-consciousness.[6]

This is a favorite theme with Royce:

A man is conscious of himself, as this finite being, only in so far as he contrasts himself, in a more or less definitely social way, with what he takes to be the life, and in fact the conscious life, of some other finite being. . . .[7] [Again, more explicitly:] Speaking in psychological terms, one can say that our finite self-consciousness is no primitive possession at all but is the hard earned outcome of the contact between the being capable of becoming rational and the rationally disposed world in which he slowly learns to move. A child becomes self-conscious only by degrees. When, as infant, he cries for his food, or even, when more intelligent, shows lively disappointment if his expectations are not met, he is not yet self-conscious. When later, as older child, he struts about, playing soldier, or shyly hides from strangers, or asks endless questions merely to see what you will say, or quarrels with his fellows at play, or shrinks from reproof, or uses his little arts to win praise and caresses, he is self-conscious.[8]

This suggestion of Royce's is important. In brief, it asserts that knowledge of one's own self, as a *conscious human being*, is not, psychologically, prior to knowl-

[6] J. Royce, *Studies of Good and Evil*, p. 201.
[7] *Ibid.*, p. 205.
[8] *Ibid.*, p. 207.

edge of other conscious human selves, but that knowledge of self and other arises out of a process of social exchanges, the result of which is to give the individual a conception of himself as related to other human beings in a social whole. If this assertion is well founded, as there seems no reason to doubt, the suggestion contributes an important partial answer to our question, "How does the individual come to know that there are men and that he is one of them?" It makes clear that this knowledge arises out of actual contact between individuals. And it tells us that the truth which is discovered is originally given in the plural, not in the singular. The individual does not know himself as a conscious human being and then cast about to see whether there are any other beings, like enough to himself in their external appearances to be called conscious human beings also. But as his consciousness becomes clearer, there emerges an awareness of a group of individuals among whom he counts for one. The characteristics of the members of this group are not all given at once, but when the individual becomes aware that he is a personality, possessing the manifold characteristics of a human being, he at the same time becomes aware that there are other personalities, possessing the same human characteristics.

In this form we accept Royce's second suggestion. It must be observed, however, that the order in which the different characteristics come to be assigned to the beings ultimately recognized as conscious human beings varies between self and other in a very important respect. The self is first known as a conscious being, while the other is first known as a physical being. The knowledge of the self and the knowledge of other minds begin at different poles, and all that the second suggestion of

Royce is justified in claiming is that the *full* conception of self is arrived at simultaneously with the *full* conception of other minds.

The first two suggestions which Royce has contributed have done little more than clear the ground for the consideration of our question, for though they have helped us to understand, on the one hand, what sort of knowledge the knowledge of self and other is, and on the other hand, in what order the knowledge of self and the knowledge of other mind are arrived at, they have not explained *how* this knowledge is actually achieved. The only suggestion toward the solution of *that* problem is that such knowledge is discovered in the social arena, arising out of contact between minds. This is an important suggestion, but it is vague, and the rest of this chapter must be mainly devoted to ridding the notion of its vagueness, discovering as completely as possible the process by which the individual arrives at his belief that he is one of a group of conscious human beings. We may then inquire whether the belief may be regarded as knowledge or mere act of faith.

The problem is set by the conclusion desired, namely, "that there exists a family of conscious human beings of which the individual in each case regards himself as a member." The special difficulty of the problem arises from the fact, which we have noted, that knowledge of self and knowledge of other mind, if knowledge it be, begin at different poles. The self *is* conscious: its awareness is "given" in every mental activity in which it is engaged, presumably from the first wail of the infant as it greets the expectant world. But it would appear that it is the *bodies* of other selves which first enter into the consciousness of the individual. Now it is true that the

nature of a human self includes both mental and physical facts, but the difficulty is in understanding how knowledge of self and knowledge of other, beginning as they appear to do, one from the mental pole and the other from the physical pole, eventually unite in the knowledge that there is a family of conscious human beings of whom the self is one.

Toward the solution of this problem, Royce offers a third suggestion. The essence of it is given in his words: "Our fellows are known to be real, because they are for each of us the endless treasury of more ideas. . . . [They] furnish us with the constantly needed supplement to our own fragmentary meanings."[9]

Like many another contribution which Royce has made to metaphysics, this suggestion was derived from the work of a contemporary, in this case from Stout. We find the suggestion free from Royce's specially chosen language in Stout. He says:

> From the first there is a marked difference between the child's relations to persons and his relations to inanimate things. It is not merely that the bodily appearance and movements of other human beings resemble his own. What is of even greater importance is that their behavior is connected in an altogether peculiar manner with the furtherance and hindrance of his interests. In general, inanimate things do not spontaneously change so as to adapt themselves to his needs and requirements or to interfere with his actions. . . . The baby may stretch out his hand toward his rattle, but if it is not within reach, it does not move toward him and place itself in his hand of its own accord, however much he may cry. But if the nurse is present, she may bring it to him. Her action then fits into

[9] *The World and the Individual,* II, 168.

his as its continuation and completion.[10] [Again, describing what occurs when the child begins to take pleasure in dropping things on the floor:] It is the nurse who picks up the spoon or rattle and restores it to him after each fall. Her action is not his, but it is the complement and continuation of what he does himself, the complement and continuation required for the fulfilment of his interest. It is what he would do for himself if he could. Under such conditions, the child must interpret the behavior of others as expressive of a subjective experience like his own.[11]

Laird expresses the same view as follows:

The child discovers that his nurse and his mother will respond to his wants in a way that inanimate objects will not respond, and therefore he comes very early to distinguish between human behavior and other kinds of behavior. . . . Through the senses and experience the child comes to distinguish between responsive and unresponsive beings, and when he comes to distinguish himself as himself he is able, by a gradual unconscious logic, to believe without a question that responsive beings have a like nature to his own.[12]

This suggestion, originating with Stout, but adopted whole-heartedly by Royce and Laird, furnishes us with a new category in dealing with the knowledge of other minds. Stout expresses this in the words, "fulfilment of interest," and, following Hocking, we shall speak of it as the category of "response." Stout's psychology is here very acute. He is clearly right in what he points out as the characteristic which distinguishes the child's relations to persons from his relations to inanimate things.

[10] *Groundwork of Psychology,* pp. 170–171.
[11] *Ibid.,* p. 172.
[12] *Problems of the Self,* p. 26.

Persons have a peculiar relation to his will. Spontaneously, they either do "what he would do for himself if he could," as in the case of the nurse picking up the rattle which has fallen out of reach, or they prevent him from doing what he attempts to do and what but for their interference he would be able to do. In either case, their activities are peculiarly associated with his will, furthering or hindering it. It is true, of course, that physical objects also have in many cases a direct association with the will, either furthering its expression or hindering it. But the physical object is passive, it does not change in *response* to the will. Changes desired in the physical object or situation are effected by the direct manipulation of the individual's own hands or other parts of his body. But the behavior of other persons often anticipates his own movements or does that for him which he has not been able, or even known how, to do for himself, but which satisfies his desire or relieves him of uneasiness.

Now, in so far as the behavior of other persons supplements the individual's own will, he will come to regard these persons as, in some sense, an extension of his own personality. But in so far as they hinder his will, as will often be the case, they will come to be regarded as, in some sense, other than himself. The conclusion will be forced on him that these persons are like himself, in that they often manipulate objects of the physical world to *further* his own interests, just as he does himself when he can, but also that they are different from himself, in that sometimes their manipulation of physical objects is *opposed* to what he conceives to be his own interest. And the impression that these persons, while often responsive to his will, are not entirely subordinate to it will be strengthened by the fact, which

he cannot fail to observe, that the behavior of these persons is for the most part *not* governed by his will at all. Perhaps most of the things they do, even to himself, are done without any comprehension on his part of the purposes which inspire them or the objects which they achieve.

An important step has thus been taken in answer to the question, "How does the individual come to believe himself one among other individuals of similar nature?" But is it true, as Stout says, that "Under such conditions, the child must interpret the behavior of others as expressive of a subjective experience like his own"? It seems to me that this interpretation is by no means forced upon the child by the facts which have been pointed out. While it is true that other persons have shown themselves to be connected with his will, to supplement it, and thus to form, in some sense, an extension of his own personality, the sense in which they do this is only the sense in which, either sooner or later, he comes to regard his own *body* as an extension of his personality. For so far other persons have appeared to him only as doing what he would do for himself if he could. Other persons must indeed henceforth be important entities in his life, specially recognized for the assistance which they give to him in manipulating the physical world, but the part they play is so far only similar to the rôle played by his own body.

This is true whether or not the child has yet discovered his own body, or found out its usefulness in manipulating the physical world. As a matter of fact, these discoveries very likely come later than the discovery that other persons respond to his needs and do for him what he cannot do for himself. Yet when the discovery of the body and its usefulness *is* made, the

rôle which the body plays is that of an *instrument*, by means of which the will is able to effect changes in the physical world. There is nothing about this rôle to lead the child to regard his *body* as possessing a subjective experience. Nor is there anything about the rôle that other persons play in caring for his needs, as this rôle has so far been outlined, which would lead the child to ascribe inner experience to them. They, too, have appeared as instruments of his will and may be as lacking in the essential attributes of a conscious human being as his body is. The child has not discovered himself to be one of a group of conscious human beings, the member of a human family. He has simply discovered that certain physical organisms are more or less responsive to his needs and effective in satisfying them by manipulating physical entities which are lacking in response. At most, he knows his own body for one among other physical organisms thus responsive and thus instrumentally effective.

What we desire is therefore still to seek. We are not, however, thrown upon our own resources, because of the contribution of C. D. Burns. What we are looking for is the type of situation out of which the conviction may naturally arise that the individual is one of a group of which all the members enjoy a *conscious* experience. Situations revealing mere "fulfilment of interest" by other persons are not sufficient, so long as the *interest* is the individual's own. The suggestion which Burns makes is that there are situations in which two or more persons enjoy similar mental processes at the same time, and that it is in such situations that the contact between minds really takes place. The precise theory which Burns puts forward must now be stated and its validity

examined, but it is well to say at once that, from the point of view which we have been pursuing, the value of Burns's contribution lies in his calling attention to the type of situation out of which the knowledge of other minds arises, namely, situations in which two or more minds are enjoying similar mental processes, perceiving a common object, or sympathetically experiencing a common emotion, or coöperating in a common deed.

The problem which Burns sets himself is to determine the relation which exists between minds. He is not concerned primarily with the problem of our knowledge of other minds. He says: "It will be necessary here to avoid any implication that other minds are necessarily objects of knowledge. The problem really is the connection between minds, and this is not necessarily the cognitive relation."[13] The relation between minds he describes as one of contact, but the contact between minds is a unique relation, not in every respect similar to other contacts, such as the contact between bodies. First of all, Burns rejects the notion that minds are related to each other chiefly by means of bodily contacts or other means of physical communication. He argues that minds are in contact, or come into contact, directly and not through the body: that, indeed, the body separates minds rather than unites them. And his hypothesis is that when minds are in contact there exists a "joint enjoyment," or rather an enjoyment which is itself not individuated into a "your" and "my" enjoyment. His view is that when minds are in contact the enjoyment which consists in the awareness of the mental process occurring in one mind is identically the same

[13] *Contact between Minds*, p. 43.

enjoyment as that which consists in the awareness of the mental process occurring in the other mind.

This hypothesis is rendered plausible by considering the nature of "enjoyment." We explained the technical meaning of this term, as used by Alexander, in a previous chapter. We said there that an enjoyment was an awareness of mental process, as distinguished from "contemplation," which, in Alexander's usage, refers to an awareness of an object. We saw that there are three general types of mental process—cognition, feeling, and conation—but that there is a common characteristic of all mental process, namely, that the process is in every case a conscious one. This characteristic is described as the "awareness" of the mental process. But this phrase "the awareness of the mental process" needs explanation. It does not necessarily mean that the awareness is a separate entity from the process, or that the process is "object" of the awareness in any but a very peculiar sense.

There appear to be at least three possible analyses of enjoyment. Two of these analyses are incompatible with the Burns hypothesis. The third is compatible, and it is the third which seems on the whole to be the analysis adopted by Burns. Let us explain as briefly as possible the three analyses of enjoyment.

The first is that enjoyment or awareness is identical with the process itself. According to this analysis, the awareness or consciousness is an existent which occurs in different modes, as cognition or as feeling or as conation. The relation of consciousness to the process is then similar to that of a chemical substance, such as water, to its modes, say, ice, liquid, and vapor. This analysis is incompatible with the hypothesis which Burns suggests. If the enjoyment is identical with the

process, it is clearly impossible that the awareness experienced or lived through or *erlebt* by one mind should be identically the same enjoyment as the awareness experienced or lived through or *erlebt* by another mind. This conclusion is acknowledged by Burns, who says:

> It is possible to say that the awareness "of" a process is not enjoyment: but the enjoyment is the process. Thus enjoyment is divided as process is divided; and if one mental process, called mine, is distinct from another, called yours, then enjoyment is essentially and inevitably individual in the same sense and so far as minds are individual.[14]

The second analysis is that enjoyment is an aspect or attribute of mental process, where attribute is used in the sense of a non-relational quality. The relation of enjoyment to mental process in this analysis is similar to the relation of redness to the skin of a ripe apple or to a patch of red color. Walking downstairs might be done unconsciously in sleep, but when done consciously while awake the process has, according to this analysis, a quality which it did not have when done in sleep. If enjoyment is a non-relational quality, as suggested, the Burns hypothesis is impossible, because the same instance of a quality cannot be possessed by two separate existents. The same quality may be possessed by two separate existents, in precisely the same determinate form, but not the same instance of the quality. The language here employed is awkward but the fact referred to seems clear: If I drop two blots of red ink on a white sheet of paper, the redness of one blot is the same universal redness as the redness of the other blot, but since the two blots are separate existents the redness of one

[14] *Contact between Minds*, p. 79.

of them is not the same instance of redness as the redness of the other.

The remaining possible analysis of enjoyment is that it is a relation, in which the mental process appears as a term. This appears to be the view of Burns, and it is, indeed, compatible with his view. For it is clearly possible logically that a relation should have as terms two mental processes, one occurring in one mind and the other occurring in another. The hypothesis of Burns then appears to be that when two minds are in contact there exists a relation of the type of awareness having as two of its terms a mental process occurring in one of these minds and a second mental process occurring in the other.

The plausibility of this hypothesis is derived from the alleged fact that there is nothing about an enjoyment in itself to mark it as exclusively individual. Burns says:

> A further difficulty in explaining the contact between minds is due to the assumption that the primary data of psychology are individualistic. It seems at least equally possible to say that Descartes was wrong in using either "res" or the first personal pronoun. The original *datum* is just "cogitatio" or rather *enjoyed mental process:* for there are mental or psychic states or acts in series. No one doubts that; but many have doubted the existence of the self or subject.[15]

The reason why certain enjoyed mental events are claimed as the individual's own seems to be, in Burns's view, that they appear in conjunction with other mental processes. "There are events and series of events called mental states or activities and these belong together.

[15] *Ibid.*, p. 36.

When they belong together in time or space or memory they are generally said to be states of one person or individual."[16] And if the enjoyment is not itself patently and intrinsically mine, there is a certain plausibility in a hypothesis which asserts that, in some cases at least, an enjoyment may be literally joint, that is to say, the enjoyment not alone of my mind but both of my mind and of your mind, the two minds being thus joined by the relation of enjoyment.

We have done what we could to state and make plausible the hypothesis which Burns puts forward to explain the contact between minds. We must now examine it critically. The first observation which springs to mind is that this alleged fact, that enjoyments which appear in an individual's experience are not patently *his* enjoyments but that they are claimed by him merely because they occur in conjunction with other mental entities, is probably not a fact at all but a mistaken analysis of the fact. To be sure, this is not a criticism which can be settled by logical argument; it must be tested by direct observation of the phenomenon referred to as enjoyment, and this observation is not easy. The *logical* difficulty with the analysis of enjoyment which Burns makes, in respect to its appropriation by the individual, is that unless somewhere among the entities which comprise the experience of the individual some immediate criterion of individuality is discovered, there seems no way of accounting for the warmth or intimacy which is certainly a fact concerning every individual's experience. The way out of this logical difficulty which is often taken, and which it is probable Burns is inclined to take, is that the "pinch of individual destiny" is

[16] *Contact between Minds,* p. 19.

immediately felt in the organic sensations which are a constant constituent of all conscious life. But the question can only be settled by making at some point an immediate inspection and analysis. In regard to organic sensations, it must be asked if there would be any "pinch of individual destiny" felt there if there were no *perception* of the organic sense data; and again, if there would be any "pinch" if there were no *enjoyment* of this perception. Of course, there would not be, and the conclusion seems to be that it is in the *enjoyment* that the individual appears, if he appears in consciousness at all.

The criticism of Burns's theory just given is by no means a refutation. He might quite well admit that the individual "lives through" his enjoyment in the same sense as he lives through his mental processes, and, in fact, he says that enjoyment "means the living through or living in a mental process."[17] When he says, as he immediately does, "As for the personal or individualistic implications of introspection, these do not concern us here except in so far as enjoyment does *not*, in our sense of the term, imply any such facts," he does not, I think, mean to deny that there is a "pinch of individual destiny" in the enjoyment. What he does mean to deny is that there is anything about the enjoyment which makes it *exclusively* individual. He desires to leave open the possibility that the enjoyment is not the individual's alone, but *both* the individual's and another's, for this is what he means when he says that, if his hypothesis is correct, when minds are in contact the enjoyment is "joint."

There is, however, a second criticism which appears conclusively to refute his hypothesis. The hypothesis is

[17] *Ibid.*, p. 45.

possible, as was shown above, only when enjoyment is analyzed as a relation which may have as terms at least as many as two mental processes occurring in two minds. This is logically possible, but let us observe precisely what such a relation would be. Whatever special character enjoyment may have, it must be admitted to be a variety of awareness. It has been defined as "an awareness of mental process." Therefore a joint enjoyment must relate two or more mental processes in the peculiar relation of awareness: such an enjoyment would be an awareness of two or more mental processes. This seems clear. But this means that when two minds are in contact there is but one enjoyment which consists in an awareness of the mental processes of the two minds. Now, it must be admitted that when one mind is in contact with another mind neither mind *fails* to enjoy mental process. Therefore, it seems logically necessary that, since there is only one enjoyment, which is joint, *each* mind must be aware of both processes.

The question is, then, whether any such enjoyment ever occurs. The obvious answer is in the negative, for the reason that no one ever is aware of two mental processes of the same type in a social situation. But this answer is met by Burns with the suggestion that a joint enjoyment is like two-eyed vision. "We do not see a different object with each eye, but one object with two eyes."[18] So in a joint enjoyment the two mental processes, in so far as they are similar, coalesce: there appears to be but one process, but the "vision," so to speak, is more inclusive. Thus, the validity of the hypothesis must be determined by whether or not the awareness when two minds are in contact actually includes more than the awareness of an isolated mind does.

[18] *Contact between Minds*, p. 70.

The only way to settle this question is to examine the alleged cases of joint enjoyment. One of these is the situation where two people are perceiving the same object. Now, if I am one of the two people, do I really enjoy a more inclusive perception when I look at an object, say a striped ball, in company with another individual than I do when I look at the ball alone? This is a question which can be readily settled in the negative. I see only the same number of stripes whether I am alone or in company. And yet, if the stripes are numbered, it can be shown that my companion's perception of the ball is not precisely similar to my own. He sees a stripe more on his right and a stripe less on his left than I do. I do not, therefore, enjoy his perception of the striped ball as well as my own, as the hypothesis requires.

The example which Burns is most fond of using is that of two individuals pulling on a rope, say to raise a flag. He says:

> If I pull at a rope with another man, I can feel that the pull is different from what it is when I pull alone; but when we pull together I cannot distinguish one part or element in the pull which is mine and another part which is his. By some means I am aware of this joint pull, if I enjoy my pulling alone.[19]

An analysis of such a situation is all that is necessary to show that the hypothesis held by Burns is absurd. He says, "By some means I am aware of this joint pull." The means are apparent enough. I am aware of my own pulling as a mental process of the conative type. I am also aware of the rope. I not only see it but I feel it in my hands and I feel the pull of *it* against my effort. If

[19] *Contact between Minds*, p. 15.

the other man lets go, the pull of the rope is increased, and I must increase my effort if the rope is to be pulled with the same force as before. Now, if a winch is substituted for the other man without my seeing it, and the pull which it gives to the rope is physically the same as the pull previously given by the man, I shall have no reason to suspect that the other man is not pulling as he was before. It seems clear that in a case of this kind, the only thing that distinguishes the experience of a joint effort from that of a single one is the difference in sense data.

But whatever may be the merits of the hypothesis suggested by Burns, there is no doubt that it gives not the slightest help in explaining our knowledge of other minds. The same criticism applies to it as to the theory of the Balfours that telepathy plays a part in the ordinary relations between persons: on the one hand, there is no evidence for it, and on the other hand, since there is nothing to distinguish a joint enjoyment from an exclusively individual one, it cannot be from this source that the knowledge of other minds is derived. What is necessary to explain the knowledge of other minds is some datum or characteristic included in individual experience which serves as a basis for this knowledge. But just because the contact which Burns suggests may occur would nevertheless be restricted only to contact between those elements in the two minds which are precisely similar or identical in both, his hypothesis, even if correct, would not give any basis whatsoever for the assurance which every individual possesses that he is not alone as a conscious being, but that there are other conscious beings like himself.

The study which Burns has given to the problem of contact between minds is not, however, barren of results

for the solution of this problem. As was said previous to the examination of Burns's hypothesis, his contribution to the problem of our knowledge of other minds lies in his bringing clearly before our attention the type of situations out of which, by some means or other, the assurance that other minds than one's own exist arises. These situations may be described as those social situations in which there is a joint enjoyment by two or more minds, meaning, however, by the phrase "joint enjoyment" nothing so radical as Burns means. When we employ the words "joint enjoyment" all we shall mean is that two or more minds are enjoying a similar mental process in the same situation, not that the enjoyment of both or all of these minds is one identical enjoyment. If this meaning of "joint enjoyment" is adopted, we may accept Burns's conclusion that

> the distinction of my mind from "other" minds exists in a very special type of experience, which may be called a joint enjoyment; and therefore we know that other minds exist, not only by an analysis of contemplated objects, but by an enjoyment which is in some sense an enjoyment of other minds.[20]

But it must be understood that the "enjoyment" of another mind is enjoyment in a free sense and not enjoyment in the technical sense intended by Burns.

This special type of experience must be analyzed much more sharply than has been done by Burns. Joint enjoyments fall into three classes along the familiar lines of the three kinds of mental process, though it is by no means implied that a joint enjoyment is always or ever purely of one of these three classes. We may say without hesitation that the assurance that there

[20] *Contact between Minds*, p. 61.

are other minds arises for each of us out of situations in which we coöperate with other individuals in some activity, or enjoy simultaneously a similar emotion, or perceive at the same time a common object, or, what is more likely, engage with other individuals in activities which involve not only similar conations but similar perceptions and similar emotions as well.

The question is how we know that the individuals with whom we are enjoying a social activity are actually enjoying the activity in the same sense as we are. The theory we are proposing is that this is known only in so far as we individually know, first, that we are coöperating with another human being in the activity, whatever the nature of the activity may be, and, second, that we know the activity to be of such a nature that it calls into play our full nature as conscious human beings.

It is here that the suggestion of Stout and Royce and Laird assumes real importance. As long as the response of other persons is confined simply to fulfilling the will of the individual by acts which are similar in every respect to those which he performs with his own body, there appears to be no reason to ascribe to them inner experience. But if the individual engages in an activity in which he requires his own conscious effort to be supplemented by efforts *of the same kind* which he is unable to supply, then if other persons respond to his need, they must inevitably be regarded as like himself in mental respects as well as physical.[21]

[21] If I am playing ball with a companion and the ball is lost, the activity which we are conscious of sharing is changed into dismay, and I shall feel that the dismay is not only mine, but is shared by my companion just as the activity has been shared. If my companion then frowns, the expression will be associated with an emotion which is not mine alone, but is shared by my companion, that is, by the one who frowns. Now, if later I perceive a frown on the face of an individual while not feeling dismay myself, it will be natural to attribute dismay to the other individual alone.

There are various types of coöperation in which these conditions are fulfilled, but in regard to many of them it does not seem likely that they actually do give those who share them their *original* assurance of the existence of other beings like themselves, since they are activities in which the individual does not engage until he has reached a stage of development past that at which it is fairly obvious that he is aware of other personalities. But there is a type of coöperation, which is also a type of response, which occurs early and very often in the history of the individual. It would appear that this type of response is sufficient of itself to explain how the individual comes to believe that he is one of a group of similar beings. This type of response is called reciprocation.

Alexander has emphasized the importance of reciprocation as the basis of the assurance in other minds, and I think that his contribution here is no inconsiderable one. He calls the experience which assures us "not inferentially but directly of other minds" the experience of sociality. His significant statement may be quoted:

> Our fellow human beings excite in us the social or gregarious instinct, and to feel socially towards another being is to be assured that it is something like ourselves. We do not first apprehend that another being is a mind and then respond to him, whether positively as in affection or negatively as in aversion; but in our tenderness or dislike we are aware of him as like ourselves. Just as the emotion of fear or the instinct to run away from certain things discovers them to be dangerous, the cognitive apprehension being given to us only in so far as we practice a certain response, so in seeking the company, or avoiding

it, of our fellows we are aware of them as like ourselves. But while without the social instinct we should not be led to this apprehension, we do not experience the satisfaction of the instinct of sociality till we have the experience that the creature towards which we act socially reciprocates our action, either by coöperation or rivalry. The emotion of sociality is a double-sided one; it is a response on our part to the other being, confirmed by a response on his part to us. The double experience is necessary to sociality; it takes two persons to make friends or two persons to make a quarrel. Without the instinctive response we should seek nothing from the other; without the coöperation we should not be aware of him in the fullest sense as our fellow.[22]

In this account Alexander stresses the "social instinct," but it is important to observe that it is not the existence or the insistence of the instinct which gives us our assurance that there are other beings like ourselves, but rather the fact that our instinctive desires and outreachings are *met* by other beings, that they respond to our desire and need of them, and also that they call upon us to do for them things of the same order as we desire them to do for us.

We do not merely feel ourselves performing certain actions towards another but we want him, and in turn we find him playing his part in the joint experience in which we are both concerned. Without this reciprocation, our instinctive action would not have its peculiar flavor. Our social feeling towards him is the divination that he is like ourselves; his reciprocation confirms it and makes it assurance.[23]

[22] *Space, Time, and Deity,* II, 32–33.
[23] *Ibid.,* p. 33.

It is not necessary to refer to a distinctively social *instinct*. I do not doubt that our social desires have, in some sense, an instinctive basis, but it is quite legitimate to question whether the instinctive needs of the individual have any other social direction except that given to them by the fact that society is so constituted that it is able to meet those needs. Through reciprocation we discover that our instinctive needs are satisfied, but this does not necessarily mean that they could not be satisfied in any other way. When reciprocation is enjoyed, however, not only are our needs satisfied, but the give-and-take of the reciprocation gives the assurance that equal parts are being played by the individual and his associates.

Thus it is not always the case that the individual desires the other being. The assurance of similarity may quite well arise out of situations of rivalry. As Alexander says:

> Rivalry for the possession of food is a different experience from appetite for food: it contains the element of jealousy or hate. Or again, if the rival is inanimate and cannot participate with us; when for instance a cigar which I am smoking goes out I may be disappointed, but if it is knocked out of my mouth by a person I am angry. When the dog's bone rolls away from him he grasps it more firmly; but if another dog or man seizes it he growls. The experience of another man's trying to get the same thing as yourself is a different experience from mere obstruction or difficulty in obtaining the object, and is the suggestion that he wants it too.[24]

The point is that in the rivalry situation one's own efforts to obtain an object or to do a certain thing meet

[24] *Ibid.*, p. 34.

with response; that is, they are actively frustrated by this other being, and the individual is given the sense of a contest in which his powers, both his strength and his ingenuity, are pitted against similar powers possessed by the other being. Instinct helps to make this clear; if the rivalry is intense the attention is drawn away from the object originally sought after and the individual becomes enraged with the being who frustrates his desire. A new intensity of emotion is discovered and to triumph over this offender becomes desirable for its own sake. And in the struggle there is a constant straining of limb against limb; a constant give and take; an effort made met by an effort returned. If the match is close the reciprocation approaches an equilibrium wherein the sense of equality is most intense.

Reciprocation plays such an important part in love that it need only be mentioned here. Whether it be friendship or the more impassioned love of man and woman, it is the discovery of reciprocation which is the great revelation. The friend or lover discovers, usually after an extended and fruitless search, some other wandering spirit who responds to him in respect to a deep-felt yet only partially understood desire. And when such a one is discovered, there is a whole vista of possible reciprocations to be explored. Tentatively and often shamefacedly we unbosom our fondest secret hopes, our hunger for earth and sky at once, our deepest longings, and our tenderest fancies. And they are not scorned or ridiculed, but eagerly espoused. They are met by reciprocal revelations in endless series. Out of it all comes the sense of comradeship, the sense that here in intercourse with this attractive stranger these unmeasured and unrealized impulses can find a satisfaction that the world denies. One's own dreams, however crystal clear they

may be, have always the flaw that they are unreal, but when they are shared they assume a substance one step nearer to realization. They may never be realized, but they are understood.

These are the heroic reciprocations of life, but this type of response comes early in experience. The fond parents of a growing child are not content to care for its physical needs, but they hover about it and endeavor by every means that they can discover or invent to get into communication with the child. They are seeking to explore its inner life and to foster its development by every device at their command. Their method of achieving this end is to seek its response to their own activities. They laugh at it and await impatiently the first quirk and twist of the baby lips which they can interpret as a smile. But it is in play that these reciprocations find their unrestricted field. In these imaginary activities in which the parent or nurse makes believe he is a child himself and plays with the child, it is possible for the growing mind to become assured of its kinship with the beings who respond to his gestures and cries, but who are all in all so very different from himself. "Peek-a-boo" and "pat-a-cake" engender in the child the assurance of his likeness to the beings who gather around him. And when the stage is reached when the child begins to play with other children, who can more perfectly reciprocate his activities, the assurance of kinship with other beings is matured.

The view now set forth explains the universality of belief in other minds in the absence of reflective analysis of the grounds upon which a logical inference can be based. It must be granted both that there is this universality and that there is usually no reflection such as would have revealed an argument such as that of our

previous chapter, which, being based on specific criteria, requires careful analysis and discrimination for its perception. How explain the belief and the assurance with which it is held under such circumstances? In previous chapter we rejected through lack of evidence such explanations as that through instinct, direct acquaintance, or, in the present chapter, through "common" or unindividualized enjoyment, and we also rejected the view of Fichte that other minds are postulated because belief in them gives a richer meaning to the will. It does do so, but without previous belief in other minds as a fact of nature we should never have been in a position to appreciate the enrichment of meaning which results from that belief. The explanation which has been suggested instead of those rejected is that the belief in other minds rests on conviction of the existence of a *social* order in which one plays one's part with similars. This conviction is not innate but is acquired by the individual through experience with what are in fact social situations, though they are not at first known to be such. The conviction grows upon the individual in the manner outlined above, beginning with a conviction of the existence of a material order merely, then passing to realization of an order responsive to will, and finally deepening to belief in an order responsive in a way which implies a sharing of one's inner, conscious life.

This view of the origin of our belief in other minds apparently makes the acquisition of the belief less certain in any individual case than it would be if it were a matter of instinct, direct acquaintance, or the like. But it is hardly less inevitable for that reason, since the conditions necessary for acquiring the belief are present wherever there is a social order with give-and-take between its members. It is implied also that there will be

in a sense *degrees* or levels of awareness of other minds, namely, in the sense that individuals will vary in the extent to which they are conscious of a *conscious* life of their fellows. The extent will vary with the amount and kind of social situations in which the individuals have been engaged. This result is verified by social experience, for it is well known that the degree of knowledge of the inner life of one's fellows to which the term "social insight" or "tact" is applied is not something given to all alike but in fact is almost a rarity among human beings. Some degree of such knowledge is given to all, however, and that is what is meant by the universality of belief in other minds.

It remains to make a final analysis of the kind of knowledge which is here involved. We have spoken of an assurance or conviction of the existence of other minds. Are we justified in regarding such assurance as knowledge? The answer will depend upon what is conceived to be meant by the word "knowledge." If it means direct experience, then the assurance of other minds is not knowledge because we have rejected the view that other minds are directly known. Nor is this assurance knowledge in the sense of an inference from particular facts, i.e., inductive knowledge. Knowledge of this type is involved in the argument of our previous chapter on specific criteria. We are not speaking of that argument now but of the assurance acquired through experience with response and reciprocation, but without analysis and inference. If we are to call this assurance knowledge, a third type of knowledge is implied.

To suggest the peculiarities of this type of knowledge a figure may be allowed. If two equal weights are attached to a balanced bar and released without any attempt to bring them into equilibrium, there will be a

period of oscillation, after which the two weights will come of their own accord into a position of equal balance. Each of the weights may be said then to have become adjusted to the existence and presence of the other. In a merely practical sense, of course, we may say that each "takes account" of the other's nature and the other's value in respect to weight. This is not knowledge because the "taking account" or adjustment is purely mechanical and implies no awareness. But transfer the situation to the mental sphere. Substitute conscious beings for the weights and intellectual and emotional activities for the oscillations of the bar. The result will again be an equilibrium between two forces. Again each being will "take account" of the existence and presence of the other, and this time there is awareness to give the full meaning to the "taking account." Add to this the fact that the activities engaged in are such that to take account of a sharer in them *means* to take account of that sharer's value in respect to intellectual and emotional activity. It is thus that one finds oneself to be a member of a social order consisting of at least one other member besides oneself. It seems to me that such a result is knowledge, as it certainly is its equivalent, even though there is no direct knowledge of another mind, and since no analysis, no inference from particulars to a conclusion.

There is a temptation to fall back on mystical analogies, to regard knowledge of other minds, in its sanest moments as well as in its moments of exaltation, as a "flight of the Alone to the Alone." Or better, because more concrete, there is the analogy of Bergson's "intuition." Like Bergson we are suggesting a type of knowledge which is neither direct nor inferred. According to Bergson, knowledge of life comes only by a kind of

sympathetic projection of oneself into a living being so that one becomes aware of the living organization by virtue of one's own self-knowledge of how life would express itself in such conditions. Our view of the knowledge of other minds is not a perfect illustration of Bergsonian intuition, but it has perhaps enough in common with it to justify using the word "intuitive" to describe the knowledge involved. But the comparison should not mislead. There is nothing mysterious about the process by which we become assured of the existence of other minds. It is not difficult or unusual, as Bergson suggests that the "intuition" is. It is simply the normal process of adjustment to social situations, of coming into psychological equilibrium with one's fellows. It is nothing more than common sense, which we have here only tried to explain and justify.

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